

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

a 25010
AI



United States
Department of
Agriculture

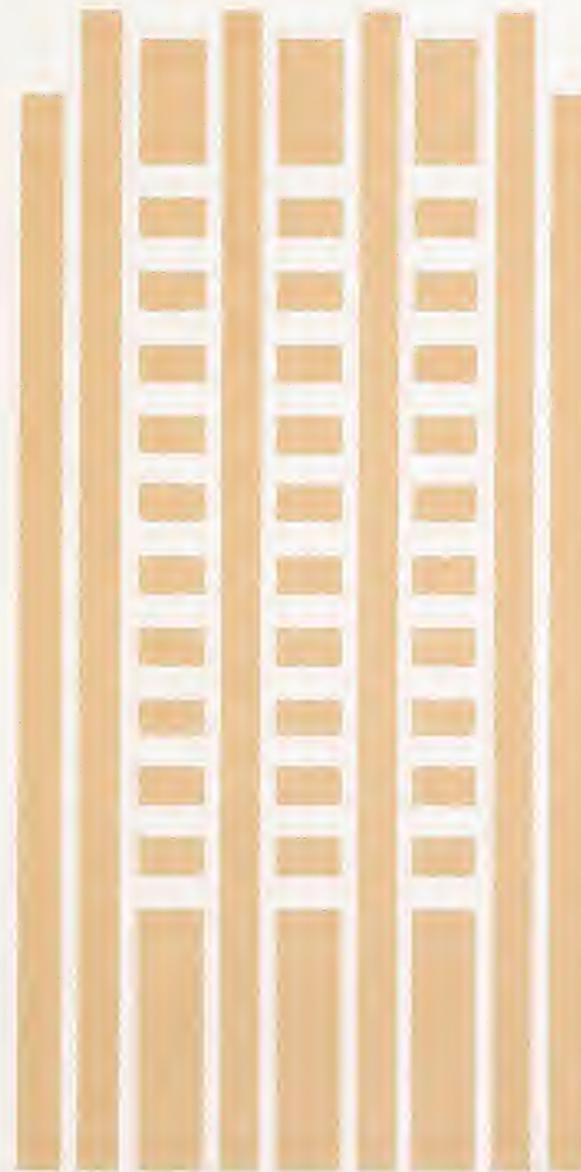
National Agricultural
Library

Reserved

Bibliographies and
Literature of
Agriculture
Number 25

SEL ms. H 286110 Directory of Aquaculture Information Resources

Fishell



U.S. DEPARTMENT OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY
RECEIVED

JAN 25 '83

DOCUMENTATION
CURRENT SERIAL RECORDS

United States Department of Agriculture
National Agricultural Library

Bibliographies and Literature of Agriculture No. 25

Directory of Aquaculture Information Resources

Through a contract with
Aspen Systems Corporation

Foreword

This Directory of Aquaculture Information Resources was compiled by Aspen Systems Corporation in response to questionnaires developed by them with cooperation and guidance from the National Agricultural Library (NAL). Questionnaires were sent to approximately 680 candidate organizations. (A sample questionnaire is appended.) It was hoped that by circulating the questionnaire as widely as possible no relevant organizations would be omitted. However, if we have overlooked your organization, we invite you to complete the questionnaire based on the criteria below and return it to NAL for any possible future listings.

To ensure the usefulness of the directory, the following qualifying criteria were developed, which reduced substantially the number of entries:

- o Only libraries and information centers in the United States with special collections of aquaculture information were considered.
- o Providing information must be a major function of the organization.
- o Service area must be no smaller than a State.
- o Organizations providing only consulting services, training, or technical assistance were not included.
- o Mail and telephone requests must be honored. Users must not be required to visit the organization or agency to obtain the information.
- o Costs for services or membership must not be unduly restrictive or prohibitive and must be specified on the entry form.

Aquaculture is generally defined as the controlled cultivation and harvest of aquatic animals and plants, including finfish, crustaceans, mollusks, and seaweed. In the United States, it consists primarily of production of fish for human consumption, but stock for commercial and sport fisheries, bait, and ornamental fish are also important. Consumer demand for aquaculture products and seafood in general is growing, a fact which Congress recognized when it passed the National Aquaculture Act of 1980 (PL 96-362).

Other efforts in aquaculture under way at the National Agriculture Library during 1981-82 have been:

- Aquaculture Research: A Directory of USDA and State Projects in CRIS, as of January 1982 (due early 1983).
- Directory of information contacts at the Federal/State/county levels, in cooperation with Auburn University, Alabama (due early 1983).
- Aquaculture bibliography drawn from AGRICOLA (due early 1983).

Camera-ready copy for this directory was provided by Aspen Systems Corporation under the guidance of the National Agricultural Library. In addition, the tape from which the camera-ready copy was produced has been retained by the NAL so that the directory might be maintained online and updated as appropriate.

Your comments regarding the usefulness of this publication as well as your suggestions for other information products will be welcome and should be sent to:

Field and Special Programs Division
Room 300
National Agricultural Library
Beltsville, Maryland 20705
Telephone: (301) 344-3834

John B. Forbes
Staff Assistant

December 1982

Contents

	<u>Page</u>
FOREWORD	i
BASIC LITERATURE SOURCES	ix
DESCRIPTIONS OF INFORMATION RESOURCES	
Alabama	
Auburn University Libraries	1
Auburn University, Department of Fisheries and Allied Aquacultures	1
Alaska	
Alaska State Libraries, State of Alaska Department of Education	2
National Oceanic and Atmospheric Administration, Auke Bay Laboratory	2
Arkansas	
U.S. Fish and Wildlife Service, Fish Farming Experimental Station	2
California	
Scripps Institute of Oceanography Library	3
California Sea Grant College Program	3
San Diego State University, Center for Marine Studies	4
West Coast Aquaculture Foundation Library	4
U.S. Environmental Protection Agency, Information and Library Services Section	5
University of California, Berkeley, Water Resources Center Archives	5
National Oceanic and Atmospheric Administration, Tiburon Laboratory Library	6
Humboldt State University Library	6
Connecticut	
University of Connecticut Sea Grant Advisory Program	7
National Oceanic and Atmospheric Administration, Northeast Fisheries Center Laboratory Library	7
Delaware	
University of Delaware, Marine Studies Library	8

District of Columbia	
National Oceanic and Atmospheric Administration, Georgetown Library and Information Center	8
U.S. Small Business Administration, Office of Advocacy for Agri-business and Ocean Industries	9
Florida	
U.S. Army Corps of Engineers Library	9
Florida Institute of Technology Library	9
University of Miami, Rosenstiel School of Marine and Atmospheric Science Library	10
Florida Institute of Technology, Jensen Beach Campus Library	11
Florida Department of Natural Resources, Marine Research Laboratory Library	11
Florida Game and Fresh Water Fish Commission	12
Hawaii	
Oceanic Institute Library	12
Department of Land and Natural Resources, Aquaculture Development Program	12
Anuenue Library	13
University of Hawaii, Science and Technology Reference Division, Hamilton Library	14
Iowa	
Iowa Cooperative Fishery Research Unit	14
Kansas	
Kansas State University, Farrell Library	15
Kentucky	
University of Louisville Library	15
Louisiana	
Louisiana Universities Marine Consortium Library	16
Louisiana State University, Middleton Library	16
Maine	
Maine Aquaculture Association Library	17
University of Maine, Ira. C. Darling Center	17
FMC Corporation Marine Colloids Library	18
Maryland	
USDA, National Agricultural Library	18
University of Maryland Sea Grant	18
Horn Point Environmental Lab	19

Massachusetts		
MIT Sea Grant Program Marine Resources Information Center	19	
New Alchemy Institute Library	20	
Marine Biological Laboratory Library	20	
Woods Hole Research Library	20	
State Lobster Hatchery and Research Station	21	
Michigan		
Institute of Water Research, Inland Lakes Research and Study Center	21	
Minnesota		
University of Minnesota, Entomology, Fisheries, and Wildlife Library	22	
Mississippi		
Gulf Coast Research Laboratory, The Gunter Library	23	
Mississippi State University Library	23	
Missouri		
Aquascience Group, Inc., Information Clearinghouse	23	
Nebraska		
University of Nebraska, CY Thompson Library	24	
New Jersey		
New Jersey Sea Grant Program, Marine Advisory Service	25	
New Mexico		
Department of Game and Fish, Aquaculture Library	25	
New York		
Department of Environmental Conservation, Division of Marine Resources	26	
SUNY, Marine Sciences Research Center	26	
Cornell University, Sea Grant Extension Program	27	
New York Sea Grant Institute, Sea Grant Extension Program	27	
North Carolina		
UNC Sea Grant College Program, NCSU Aquaculture Demonstration Project	28	
North Carolina Marine Resources Center	28	
Oklahoma		
Oklahoma Department of Wildlife Conservation Library	28	
Oklahoma Cooperative Fisheries Research Unit	29	
Oregon		
Oregon State University, Marine Science Center Library	29	

Pennsylvania		
Pennsylvania Fish Commission, Benner Spring Research Station Library	30	
U.S. Fish and Wildlife Service, Lamar Fish Cultural Development Center	30	
National Fishery R & D Laboratory Library	31	
Rhode Island		
International Center for Marine Resources Development	31	
Rhode Island Aquaculture Association Information Center	32	
University of Rhode Island, Division of Marine Resources Library	32	
South Carolina		
South Carolina Sea Grant	33	
Cooperative Marine Resources Library	33	
Clemson University Cooperative Extension Service	34	
South Dakota		
U.S. Geological Survey	34	
U.S. Fish and Wildlife Service, Spearfish Fisheries Center	35	
Tennessee		
University of Tennessee Agriculture-Veterinary Medicine Library	35	
Texas		
Texas A & M University, Department of Wildlife and Fisheries Science Library	35	
Heart of the Hills Fishery Research Station	36	
University of Texas, Port Aransas Marine Laboratory	36	
Virginia		
U.S. Geological Survey Library	37	
Aquaculture Data Base	37	
College of William and Mary, Virginia Institute of Marine Science Library	38	
Old Dominion University Library	38	
Washington		
University of Washington, Fisheries-Oceanography Library	39	
National Fishery Research Center	39	
National Oceanic and Atmospheric Administration, Northwest and Alaska Fisheries Center Library	40	

West Virginia		
National Fisheries Center, Technical Information Services		40
Wisconsin		
National Fishery Research Laboratory Library		41
SUBJECT INDEX OF INFORMATION RESOURCES SECTION		43
STATE COOPERATIVE EXTENSION SERVICE FISHERIES/AQUACULTURE SPECIALISTS; EXTENSION SERVICE, USDA, CONTACT PERSON FOR FISHERIES/AQUACULTURE		47
QUESTIONNAIRE		55



Basic Literature Sources

This section serves as an adjunct to the directory section, which lists the information resources. It provides a minimal self-help guide for those new to the aquaculture discipline, for closely related areas, or for more specific investigation.

I. ABSTRACTING AND INDEXING AIDS

Thousands of citations to the literature on various aspects of marine and freshwater fisheries and aquaculture are available in printed and computerized formats covering just the last 5 years. Only three aids are given here. These three files have 30 to 40 percent duplication of entries, but each has emphases and an approach to indexing or availability which make it valuable. Many peripheral or closely related files also exist but are generally more specialized in their coverage.

AGRICOLA (Agricultural On-Line Access)

This computerized file from the indexing and cataloging operations of the National Agricultural Library, USDA, presently has 1.5 million citations from 1970 to the present. AGRICOLA covers worldwide literature in journals and monographs as well as technical and scientific reports and translations collected by the National Agricultural Library including those in aquaculture and fisheries. New category codes for aquaculture work were introduced in 1981 that allow for more careful selection of sub-subjects. Little is indexed that is concerned with brackish or marine organisms. Species names are included in the indexing record when in the publication cited. About 2,500 citations close to the definition of aquaculture used in this directory are in the AGRICOLA file from 1979 to date. Of particular value is literature from the State Cooperative Extension Services. The online file is added to monthly. The major portion of the records is published monthly in the Bibliography of Agriculture by Oryx Press, 2214 North Central at Encanto, Phoenix, Arizona 85004.

AQUACULTURE

This file of 9,000 citations created by Virginia Institute of Marine Sciences under the sponsorship of the U.S. National Oceanic and Atmospheric Administration (NOAA) is available only in an online mode through DIALOG, offered by DIALOG Information Services, Inc. AQUACULTURE provides access to citations on the growing of marine, brackish, and freshwater organisms, including disease, economics, engineering, food and nutrition, and legal aspects. Coverage is international on all types of published literature, but the best coverage is that of the organizations in NOAA and the Sea Grant universities.

AQUATIC SCIENCES AND FISHERIES ABSTRACTS

A monthly service produced through international cooperation of several separate, independent agencies and merger of publications by the Aquatic Sciences and Fisheries Information Service, founded by Food and Agriculture

Organization (FAO) and the Intergovernmental Oceanographic Commission in 1975. ASFA was published from 1971-1981 by Information Retrieval Limited (London) and since 1982 by Cambridge Scientific Abstracts (Bethesda, Md.). It has been published in two sections since 1978:

Part 1: Biological Sciences and Living Resources
Part 2: Ocean Technology, Policy and Non-Living Resources.

The online file (available from DIALOG) is known as ASFA and covers the literature from 1978 to present with monthly updates. This file of over 100,000 citations is growing in its coverage of life sciences in marine environments and inland waterways. The machine-readable records have abstracts. Valuable for its extensive coverage of European, British Commonwealth, and U.S. scientific literature on fisheries, oceanography, and water pollution, in addition to aquaculture.

These three printed or online files are basic literature support for application and scientific work in aquaculture in the United States. Numerous other closely related or highly specialized printed or online files exist. The reader is referred to the following sources for additional information and some evaluation of the bibliographic aids.

GUIDE TO SOURCES FOR AGRICULTURAL AND BIOLOGICAL RESEARCH, edited by J. Richard Blanchard and Lois Farrell. Berkeley, University of California Press, 1981. 735 pages.

A 7-page section entitled Commercial Fishing and Fisheries (Entries D735-D824) has an introductory narrative and subsections for Abstracts and Indexes, Bibliographies and Library Catalogs, Dictionaries and Encyclopedias, Directories, Lists of Fishes, Periodical Lists, and Statistics. The reader is referred to this volume for details on all of these specific types of publications. Aquaculture is not strongly represented in the book, however. The Guide includes a chapter describing the online bibliographic data bases.

AQUATIC SCIENCES SEARCH COVERAGE, by Ann M. Juneau. Pages 91-106, In Online '81 Conference Proceedings. Dallas, Texas, Online, Inc., November 1981.

A discussion and evaluation of three data base files with emphasis on the marine sciences and fisheries.

FISHERIES AND AQUACULTURE INFORMATION: THE STATE OF THE ART, by Deborah Turnbull. Pages 231-239, In Proceedings of the VIth World Congress of the International Association of Agricultural Librarians and Documentalists: Agricultural Information to Hasten Development. Los Banos, Philippines, 1981.

Largely a description of the Aquatic Sciences and Fisheries Information System (ASFIS) and other FAO activities.

These bibliographic files online or in printed form may be accessed at major research or university libraries. Non-USDA personnel are encouraged to work with their State land-grant

university library. Most university libraries provide computerized searches for a fee and, in some cases, for free, depending upon the status of the individual. Persons in the USDA should utilize the field libraries or network service centers of their agencies. They may also get assistance and searches from the National Agricultural Library in Beltsville by calling (301) 344-3704, or from the D.C. Branch of NAL, (202) 447-3434.

Inquiries about aquaculture information planning and services may be addressed to this office.

Wallace C. Olsen
Chief, Field and Special Programs Division
National Agricultural Library
Beltsville, Maryland 20705

(301) 344-3834

II. DIRECTORIES OR SUMMARIES OF SIGNIFICANCE

The following three publications are good summaries or reference tools with information of value to U.S. aquaculture. They do not represent a definitive group of publications, but are very valuable for locating information, data, organizations, or contacts.

THE AMERICAN FISHERIES DIRECTORY AND REFERENCE BOOK, published by National Fisherman, 21 Elm Street, Camden, Maine 04943. Second edition, 1981.
760 pages.

This is the most up-to-date and complete guide to marine, brackish, and freshwater fisheries work, and is a remarkably broad and well-produced volume. Sections are:

- I. Directory of Equipment Manufacturers, Distributors, and Dealers.
In 12 chapters from fishing gear to food packing. 248 pages.
- II. Directory of Services.
In 12 chapters from boatbuilding to trade shows, including a directory of education. 74 pages.
- III. Directory of Brokers, Buyers, Exporters and Importers, Processors and Wholesalers of Seafood and Fish Products.
In 13 chapters. 210 pages.
- IV. Books and Periodicals.
In 2 chapters of in-print books, and mostly marine periodicals.
Good basic list of materials for the commercial fisheries industry.
12 pages.
- V. Geographic Fishery Regions.
In 7 chapters for major portions of U.S., plus a chapter on lakes and rivers. Organizations and contacts are given for Federal of-

fices which relate to fisheries and aquaculture as well as State offices, some State organizations, and statistics on State production. 167 pages.

VI. National Directory.

Chapter 1 covers 12 U.S. Federal Departments, plus 18 U.S. commissions, institutions, academies, authorities, offices, or foundations. Chapter 2 deals with the U.S. Congress' committees, and 44 laws. 18 pages.

VII. Organizations.

Includes a chapter on coastal commissions, and a second of associations ranging from aquaculturists through trade associations. 6 pages.

VIII. International Directory.

Includes chapters on international fisheries commissions, the United Nations, selected fishing nations with contacts and data. 6 pages.

The final section of the work is an advertisers' index. An appendix provides national and international statistics on fisheries.

AMERICAN FISHERIES SOCIETY MEMBERSHIP DIRECTORY AND HANDBOOK, American Fisheries Society, 5410 Grosvenor Lane, Bethesda, Md. 20014. 1982 edition, 75 pages. (NAL Call No.: SH 1.A5)

Alphabetical list of the 1,100 personal members plus corporate and associate members. Includes information of concern to Society members such as a Code of Practice, executive committee, standing committees and members, officers, and State or chapter offices. Largest professional society in U.S. in this field; 112 years old.

AQUACULTURE OUTLOOK AND SITUATION, Scheduled to appear twice a year, but none set for late 1982. First issue was December 1981 (24 pages) and second April 1982 (16 pages). USDA, Economic Research Service (Series AS2-3). On a subscription basis from ERS beginning June 1982.

Covers catfish, trout, and crawfish from major producing States, including such data as prices, production, dressed-weight, imports, and numbers of producers. Several statistical tables with interpretive and explanatory narrative including trends. Principal contributor is Susan Dash in the Economic Research Service, (202) 447-8636.

CATFISH PROCESSORS REPORT, Monthly summary of pounds processed, prices paid, and imports. Contact: Paul Hurt, Statistical Reporting Service (202) 447-2123.

DIRECTORY OF SELECTED U.S. FISH AND WILDLIFE SERVICE AQUACULTURE FACILITIES AND SERVICES. (In press, November 1982, approximately 22 pages). Xerox copies available from Joyce Mann, National Fisheries Center, Technical Information Services, Rt. 3, Box 700, Kearneysville, West Virginia 25430.

Covers the Service's aquaculture officials, National Fish Hatcheries, Fish Cultural Development Centers, fish hatchery biologists, National Fisheries Center components, and other service laboratories with aquaculture programs.

III. SELECTED PRIMARY PERIODICALS

This very limited group of journals and periodicals includes the most active titles used by practitioners and researchers in the United States. Not included are the numerous newsletters issued by associations, State offices, and Sea Grant institutions, as well as those which are primarily news or commercial periodicals.

AQUACULTURE, Elsevier Scientific Publishing Co., Contact for U.S. and Canada: Elsevier Journal Information Centre, 52 Vanderbilt Ave., New York City 10017. (16 issues a year; \$313 a year) Vol. 25 (1982) over 1,000 pages. (NAL Call No.: SH 1.A6)

An international journal devoted to research on the exploration, improvement, and management of all aquatic food resources, floristic and faunistic, from freshwater, brackish, and marine environment. Heavy on cultivation techniques and processes, and worldwide in coverage.

AQUACULTURE DIGEST, 9434 Kearney Mesa Rd., San Diego, Cal. 92126 (Monthly; \$40 a year) Vol. 7 in 1982, about 300 pages. (NAL Call No.: SH 1.A63)

A current awareness guide to activities taken from published literature, telephone calls, mailedin announcements, and correspondence. Brief summaries with good references to sources, compactly packaged. Special emphasis is given to business news, scientific research, and production.

AQUACULTURE MAGAZINE, P.O. Box 254, Little Rock, Ark. 72202 (Bimonthly; \$15 a year) Vol. 8 (1982) about 250 pages. (NAL Call No.: SH 1.A63)

Includes news and feature articles for those engaged in production, processing, and marketing of finfish, shellfish, crustaceans, and aquatic plants. Includes reports on educational courses, extension activities, products and services, operations, research, political and legislative activities, annual meeting summaries of State associations, new equipment and supplies, publications, and a good calendar of future activities. Its annual Buyer's Guide is excellent.

FARM POND HARVEST, Prof. Sportsman's Publ. Co., Box AA, Momence, Ill. 60954. (Issued in Jan., April, July, and Oct., 8 pages) Vol. 16 (1982) about 150 pages. (NAL Call No.: SH 1.F3)

Concerned with farm pond planning, construction, management, and fishing and harvesting. Very newsy and informal. Heavy on industry advertising.

FISHERIES: A BULLETIN OF THE AMERICAN FISHERIES SOCIETY, The Society, 5410 Grosvenor Lane, Bethesda, Md. 20814. (Bimonthly; \$30 per volume year) 60 pgs. an issue. (NAL Call No.: SH 1.FS4)

The society newsletter and professional journal of the largest fisheries group in U.S. Includes some papers on fisheries management but prime value is announcements of recent developments, news and notes of the Society, good list of coming meetings, and new books and literature. Ads of interest to professional fish biologists.

FISHERY BULLETIN, National Marine Fisheries Service, National Oceanic and Atmospheric Admin., U.S. Dept. of Commerce, 6010 Executive Blvd. Rockville, Md. 20853. Available from GPO. (Quarterly; \$12 a year) Vol. 80 (1982), 750 pages. (NAL Call No.: 157.5. B87)

Carries original research reports and technical notes on fishing sciences, engineering, and economics. Concentrates on marine fisheries.

JOURNAL OF FISH BIOLOGY, Publication by Academic Press for the Fisheries Society of the British Isles, 24/28 Oval Rd., London, NWI 7DX, England. (Monthly; \$252 a year) Vols. 20 & 21 (1982) about 700 pages. (NAL Call No.: QL 614. J68)

A scholarly, authoritative journal on all aspects of fish biology, fisheries research results, management, and conservation. Heavily marine and from the British Commonwealth countries.

JOURNAL OF FISH DISEASES, Oxford & Boston, Blackwell Scientific Publications. (Bimonthly; \$165 airfreight) Vol. 5 in 1982; about 500 pages. (NAL Call No.: SH171. A1. J68)

Highly scientific and scholarly, primarily on brackish and marine. An international journal publishing scientific papers, short communications, review articles, and book reviews. High quality printing with numerous illustrations.

NORTH AMERICAN JOURNAL OF FISHERIES MANAGEMENT, American Fisheries Society, 5410 Grosvenor Lane, Bethesda, Md. 20814. (Quarterly; \$10, available to members only; plus membership \$30).

Journal examines management techniques, problems, issues and opportunities, and publicizes pertinent field notes and observations.

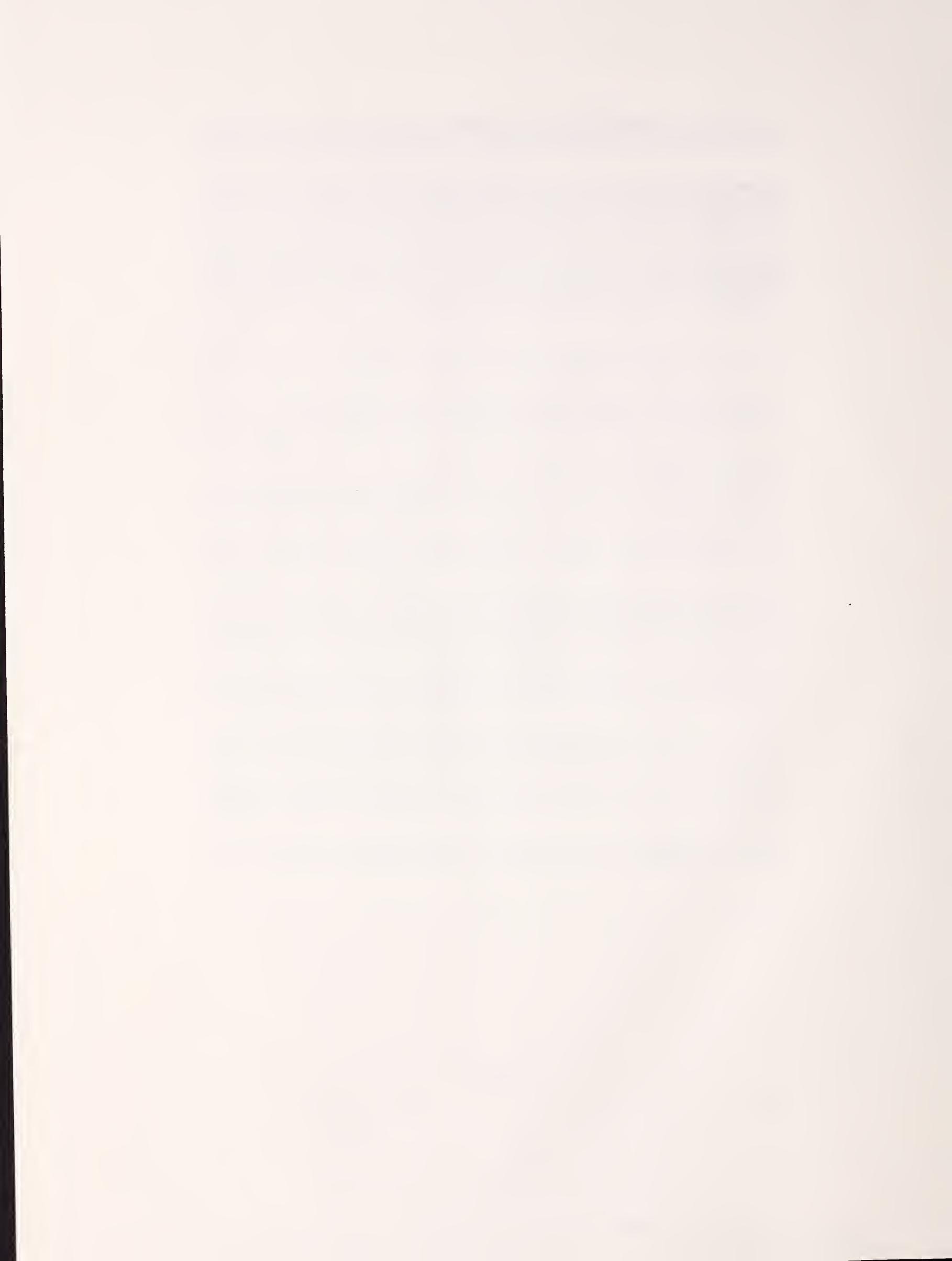
PROGRESSIVE FISH-CULTURIST, Fish & Wildlife Service, U.S. Department of Interior. Available from GPO. (Quarterly; \$10 a year) Vol. 44 in 1982; about 230 pages. (NAL Call No.: 157.5. P94)

Primarily concerned with native American field fish, their health, propagation, equipment, and general care. In recent years more emphases on culture

in reservoirs, impoundments, and lakes, and associated environmental situations. A practical, advanced-culturalists scientific journal.

TRANSACTIONS OF THE AMERICAN FISHERIES SOCIETY, The Society, 5410 Grosvenor Lane, Bethesda, Md. 20814. (Bimonthly; \$15 to members). Vol. III (1982) about 150 pages per issue. (NAL Call No.: 414.9. AM3)

An authoritative scientific and technical publication devoted to original research on fisheries biology, management of fish, fisheries, and related aquatic resources. Includes articles, brief communications, book reviews, and occasional special sections on a single topic.



Descriptions of Information Resources

Alabama

1.

Name: **Auburn University Libraries**
Sponsor: Auburn University
Address: Auburn University Libraries, Auburn University, AL 36849
Phone/Hours: (205) 826-4500 / 7:45 a.m.-11 p.m. M-Th; 7:45 a.m.-10 p.m. F;
9 a.m.-6 p.m. Sat.; 1-11 Sun.
Staff: 31 professional, 65 support
Director: William C. Highfill, University Librarian
Contacts: John Vandermolen, Head, Science and Technology, (205) 826-4500;
Sherrida Jassmann, Online Services Coordinator, (205) 826-4500;
Sherida Downer, Head, Circulation Department, (205) 826-4500.
Programs: Provide library facilities, materials, and services to the Department of Fisheries and Allied Aquacultures of the School of Agriculture, among others, in support of the instructional, research, and service activities of the students, faculty, and staff of the University. Journals, books, proceedings, and other literature support the curriculum and research of the Department of Fisheries and Allied Aquaculture.
Use Policy: No user restrictions. Collections and services generally available on request.
Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files--costs include the cost of the search (computer time and print-out cost) plus an overhead fee. Off-campus users charged additional \$10.00. Write for details. Blowback for microfiche/film, interlibrary loan, current awareness/SDI services.
Holdings Size: 350,000 books and technical reports; 2,200 periodicals; 250 abstracting and indexing publications. Figures represent entire science and technology department.

2.

Name: **Department of Fisheries and Allied Aquacultures**
Sponsor: Auburn University; Founded 1970
Address: Swingle Hall, Auburn University, Auburn, AL 36849
Phone/Hours: (205) 826-4786 / 7:45 a.m.-4:45 p.m.
Staff: 25 professional, 145 students
Director: Dr. E.W. Shell, Department Chairman
Contacts: Publications Clerk (part-time student), (205) 826-7056.
Programs: Education, training, research, information dissemination. International aquaculture development, aquacultural economics, planning, marketing, and basic research results in all subdisciplines of warmwater aquaculture.
Subjects: Catfish, largemouth bass, striped bass, tilapia, bluegill, Chinese carp, paddlefish, common carp, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, fish control (marginal - means pesticides), pond construction, hatchery management, production pond management, freshwater production systems, estuarine (brackish water) environment, aquaculture facility/hatchery management, water resources management, pollution and pollution control, aquaculture marketing, aquaculture processing operations, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: Telephone reference service (informal), response to mail requests, consulting services (mostly informal), dissemination of publications/materials.
Publications: ICA Communicae - quarterly; Aquaculture R and D Series,

Holdings Size: Agricultural Experiment Station - occasional.
850 technical reports; 260 theses and dissertations.

Alaska

3.

Name: **Alaska State Library**
Sponsor: State of Alaska, Department of Education, Division of Libraries;
Founded: Founded 1957
Address: Pouch G, Juneau, AK 99811
Phone/Hours: (907) 465-2921 / 8-5 M-F
Staff: 21 professional, 32 support
Director: Richard B. Engen, State Librarian
Contacts: Sherry Taber, Reference Librarian, (907) 465-2921; Kay Rosier,
Interlibrary Loan Librarian, (907) 465-2988.
Programs: The Alaska State Library has a general collection of aquaculture
materials, including Alaska state documents. Alaska documents
received are cataloged into the Washington Library Network.

4.

Name: **Auke Bay Laboratory**
Sponsor: National Marine Fisheries Service; Founded 1960
Address: Box 155, Auke Bay, AK 99821
Phone/Hours: (907) 789-7231 / 8-4:30 M-F
Staff: 40 professional
Director: Dr. George S. Snyder
Contacts: William R. Heard, Aquaculture Program Manager, (907) 789-7231;
Ester Erickson, Librarian, (907) 789-7231.
Programs: Aquaculture research programs focus on culture and release of
Pacific salmon juveniles and careful documentation of anadromous
adult returns. The program deals with variations in culture and
release strategies and their effects on marine survival of
released fry or smolts. Emphasis on depressed stocks and
species. Periodical reports, manuscripts, and published papers
available from most Pacific salmon programs.
Subjects: Trout, salmon, genetics and breeding of aquatic animals, water
quality in aquaculture, freshwater production systems, marine
and estuarine environments, aquaculture facility/hatchery
management, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: Searches of automated files maintained by the center, searches
of commercially available online files, interlibrary loan,
referral, dissemination of publications/materials.
Holdings Size: 75 books; 350-450 technical reports; 15 periodicals.

Arkansas

5.

Name: **Fish Farming Experimental Station**
Sponsor: U.S. Fish and Wildlife Service; Founded 1962
Address: P.O. Box 860, Stuttgart, AR 72160
Phone/Hours: (501) 673-8761 / 7:30-4 M-Tu
Staff: 10 professional, 6 support
Director: Harry Dupree
Contacts: Joyce Cooper, Principal Duty Librarian.
Programs: Warmwater fishery research. Emphasis on extension, diseases,
genetics, water quality, nutrition. Catfish, Chinese carp,
others. Most important resource is reprint file holding 6,900
cataloged reprints. We have periodicals and books which are
totally aquaculture oriented.

Subjects: Catfish, Chinese carp, disease of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, freshwater production systems, research and development.

Services: Response to mail requests, interlibrary loan, searches of manual indexes and abstracts, dissemination of publications/materials.

Holdings Size: 600 books; 146 periodicals; very few microform titles; 6 abstracting and indexing publications; audiovisual collection kept in extension department.

California

6.

Name: Scripps Institution of Oceanography Library
Sponsor: Scripps Institution of Oceanography
Address: C075C, University of California San Diego, La Jolla, CA 92093
Phone/Hours: (714) 452-4817 / 8 a.m.-11 p.m. M-Th.; 8-6 F; 9-5 Sat; 1-5 Sun.
Staff: 4 professional, 20 support
Director: William Goff, Head, SIO Library
Contacts: Susan Starr, Head, SIO Library Public Services, (714) 452-4817; Deborah Day, Archivist, (714) 452-3274.
Programs: The SIO Library supports the research and teaching programs of the Scripps Institution of Oceanography and serves as a resource library in the marine sciences for the nine campuses of the University of California. Collects extensively in marine biology, including aquaculture. Emphasis on California and the Pacific, marine rather than freshwater. Many sea grant reports and reports from foreign institutions which are aquaculture related.
Subjects: Mussels, oysters, marine shrimp, lobsters, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, marine and estuarine environments, land use and coastal zone management, water resources management, pollution and pollution control.
Use Policy: Library open to public; borrowing privileges restricted to students, faculty, and staff of the University of California and authorized library privilege card holders.
Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files (charges), copying services/coin-operated machines, blowback for microfiche/film, interlibrary loan, referral. Acquisitions List - bimonthly.
Publications: 234,000 books; 32,000 technical reports, including microform; 3,400 current periodicals, including abstracting and indexing publications.

7.

Name: California Sea Grant College Program
Sponsor: National Oceanic and Atmospheric Administration and California State Resources Agency; Founded 1968
Address: University of California, A-032, La Jolla, CA 92093
Phone/Hours: (714) 452-4440 / 8-4:30 M-F
Staff: 3 professional, 7 support
Contacts: James J. Sullivan, Program Manager, (714) 452-4440; Kelly E. Anderson, Communications Coordinator, (714) 452-4446.
Programs: The California Sea Grant College Program publishes education, reference, and technical reports that result from Sea Grant plant and animal aquaculture research and development projects it supports each year. Also makes reprints from journals and

proceedings available to general public. In the current year, approximately 17 percent of total California Sea Grant resources is set aside for aquaculture research, development, and advisory activities.

Subjects: Trout, salmon, marine shrimp, striped bass, American lobster (*Homarus americanus*), purple-hinge rock scallop (*Hinnites multirugosus*), white sturgeon, crab (*Cancer magister*), abalone (*Haliotis*), marine and estuarine environments, aquaculture facility/hatchery management, land use and coastal zone management, regulations, permits, licenses, economics of aquaculture, aquaculture processing operations, research and development.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, referral, dissemination of publications/materials.

Publications: *California Sea Grant Biennial Report* - biennial; *Program Directory* - annual; *California Sea Grant Summary Report*; *California Aquaculture Newsletter* - monthly; *California Marine Advisory Program Newsletter* - bimonthly; *Directory of Academic Marine Programs in CA* - biennial.

Holdings Size: Collection includes reprints from refereed journals, proceedings, Marine Advisory Program Leaflets, and working papers.

8.

Name: **Center for Marine Studies**
Sponsor: San Diego State University; Founded 1968
Address: Center for Marine Studies, San Diego State University, San Diego, CA 92182-0408
Phone/Hours: (714) 265-6523 / 8-4:30 M-F
Staff: 5 professional, 8 support
Contacts: Dr. Richard F. Ford, Director, (714) 265-6523.
Programs: The Center is operated as a special unit of the College of Sciences at SDSU. There are active instructional and research programs in aquaculture. Copies of publications, reports, and data records for aquaculture research conducted by faculty, staff, and students at SDSU.

Subjects: Mussels, freshwater prawns, marine shrimp, striped bass, hardshell clams, spiny and clawed lobsters, rock scallops, nutrition of aquatic animals, disease of aquatic animals and its control, water quality in aquaculture, use of thermal effluent in aquaculture, freshwater production systems, marine and estuarine environments, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, aquaculture marketing, research and development.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, consulting services (cost varies according to staff involved), dissemination of publications/materials.

Publications: *Center for Marine Studies Technical Report Series* - semiannual.
Holdings Size: 150 books; 150 technical reports; 3 periodicals.

9.

Name: **West Coast Aquaculture Foundation Library**
Sponsor: (Nonprofit, educational foundation); Founded 1980
Address: 700 Cannery Row, Suite JJ, Monterey, CA 93950
Phone/Hours: (408) 646-1217 / 8:30-5 M-F
Staff: 3 professional, 1 support
Contacts: Henrietta Stern, Information Specialist, (408) 646-1217; Dr. John Dupuy, Executive Director, (408) 646-1217; Carol Stewart,

Programs: Office Manager, (408) 646-1217.
Clearinghouse for aquaculture information; coordinate research efforts; analyze issues; educational activities (including newsletter); professional placement; referral; provide educational literature to media. Some printed materials (books, reports, periodicals, directories of producers and products). Expertise of staff members in culture methods or appropriate contacts for further information.

Subjects: Mussels, oysters, trout, salmon, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, striped bass, hardshell clams, abalone, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, freshwater production systems, marine and estuarine environments, closed and depuration production systems, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, worker health and safety, regulations, permits, licenses, financing and loan programs, aquaculture marketing.

Use Policy: All are welcome to contact us for information, but nonmembers must pay for costs (reproduction, mailing, labor, etc). Members may use facilities for free.

Services: Telephone reference service (cost for nonmembers), response to mail request (cost for nonmembers), referral, dissemination of publications/materials (cost for nonmembers).

Publications: WCAF Newsletter - quarterly, \$15.

10.

Name: **Information and Library Services Section**

Sponsor: U.S. Environmental Protection Agency; Founded 1970

Address: 215 Fremont Street, San Francisco, CA 94105

Phone/Hours: (415) 974-8076 / 8-4:30 M-F

Staff: 5 professional, 4 support

Contacts: Jean Ciriello, Chief, (415) 974-8076; Pat Maravilla, Technical Information Specialist, (415) 974-8076; Leslie Ragle, Technical Information Specialist, (415) 974-8076; Sandra Smith, Interlibrary Loan, (415) 974-8082.

Subjects: Water quality in aquaculture, land use and coastal zone management, water resources management, pollution and pollution control.

Use Policy: Open to all for reference. Loan only on interlibrary loan.

Services: Telephone reference service, response to mail requests, onsite reference service, copying services/coin-operated machines (\$.10), interlibrary loan, referral, dissemination of publications/materials.

11.

Name: **Water Resources Center Archives**

Sponsor: Water Resources Center, University of California; Founded 1957

Address: 410 O'Brien Hall, University of California, Berkeley, CA 94720

Phone/Hours: (415) 642-2666 / 8-5 M-F

Staff: 1 professional, 2 support

Contacts: Gerald Giefer, Librarian, (415) 642-2666.

Programs: Working collection of water-related primary sources to support instruction and research programs. Emphasis is on water resources development and management in California and the West.

Subjects: Striped bass, water quality in aquaculture, estuarine environment, land use and coastal zone management, water resources management, pollution and pollution control.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite

Holdings Size: reference service, interlibrary loan, searches of manual indexes and abstracts.
20,000 books; 80,000 technical reports; 12 vertical file drawers.

12.

Name: **Tiburon Laboratory Library**
Sponsor: National Marine Fisheries Service; Founded 1963
Address: 3150 Paradise Drive, Tiburon, CA 94920
Phone/Hours: (415) 435-3149 / 9-4:30 M-F
Staff: 1 professional
Director: Maureen Woods-Leet, Librarian, (415) 435-3149.
Contacts: The collection is primarily books, periodicals, and reprints on fishery science and oceanography. We have the reprint collection of Dr. Victor L. Loosanoff of N.M.F.S., Milford, Conn. This special collection comprises 10,000 reprints bound by subject and includes areas of study in commercial mollusks aquaculture and the shellfish industry.
Programs: Mussels, oysters, salmon, freshwater prawns, marine shrimp, striped bass, hardshell clams, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, fish control (marginal - means pesticides), marine environment, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, regulations, permits, licenses, aquaculture marketing, aquaculture processing operations, commercial aquaculture, research and development.
Subjects: Library does not circulate materials; collection is for reference only.
Use Policy: Telephone reference service, response to mail requests, onsite reference service, searches of automated files maintained by the center (nonmembers-- invoice for amount), searches of commercially available online files (nonmembers--invoice for amount), interlibrary loan, searches of manual indexes and abstracts, dissemination of publications/materials.
Services: Annual List of Laboratory Reprints - annual.
Publications: 250 books; 10,000 technical reports; 270 periodicals; 2 microform titles; abstracting and indexing publications - 3+ DIALOG Access; 8 movies.
Holdings Size:

13.

Name: **Humboldt State University Library**
Sponsor: Humboldt State University; Founded 1913
Address: Arcata, CA 95521
Phone/Hours: (707) 826-3416 / M-Th 8 a.m.-11:45 p.m.; Fri. 8 a.m.-6:45 p.m.; Sat. 9 a.m.-5:45 p.m.; Sun. 11 a.m.-9:45 p.m.
Staff: 11 professional, 30 support
Director: David Oyler, University Librarian
Contacts: Robert Sathrum, Science Librarian, (707) 826-3416; Marilyn Murphy, Inter Library Loan Librarian, (707) 826-4889.
Programs: Teaching and research library supporting 47 undergraduate and 14 graduate degree programs including graduate programs in marine biology, fisheries, and wastewater utilization. The library has an extensive collection of journals, serials, books, and federal, state, and FAO documents in marine biology and fisheries, including appropriate material on aquaculture.
Subjects: Trout, salmon, nutrition of aquatic animals, disease of aquatic animals and its control, water quality in aquaculture, freshwater production systems, marine and estuarine environments, aquaculture facility/hatchery management, research and development.

Use Policy: No charge for in-house use. Annual charge (\$25) for nonuniversity-affiliated borrowing privileges (except Interlibrary Loan).

Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files (1/2 of search cost for members), copying services/coin-operated machines (\$.10/page), blowback for microfiche/film (\$.15/page).

Holdings Size: 200 books; 45 periodicals (includes marine biology, aquaculture, and fisheries); 2 vertical file drawers; 10 abstracting and indexing publications; 500 volumes of government documents.

Connecticut

14.

Name: **Sea Grant Advisory Program**
Sponsor: University of Connecticut; Founded 1974
Address: Marine Sciences Institute, Avery Point, Groton, CT 06340
Phone/Hours: (203) 445-8664 / 8:30-4:30 M-F
Staff: 2 professional, 3 support, 1 volunteer
Director: Dr. Lance Stewart
Programs: Promote technology transfer (university to marine user) with state-of-the-art information; implement demonstration programs (industry and local government); conduct applied aquacultural (mariculture) research.
Subjects: Mussels, oysters, hardshell clams, eels, in situ grow-out systems, field observations, marine environment, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests.

15.

Name: **Northeast Fisheries Center Laboratory Library**
Sponsor: Northeast Fisheries Center, National Marine Fisheries Service, NOAA, Department of Commerce
Address: 212 Rogers Avenue, Milford, CT 06460
Phone/Hours: (203) 783-4234 / 8-4:30 M-F
Staff: 1 temporary professional
Contacts: Dr. James E. Hanks, Laboratory Director, (203) 783-4240; Ronald Fontaine, Library Assistant (temporary), (203) 783-4234.
Programs: Library serves as information source for laboratory staff of 30 professionals. Holdings include broad coverage in marine biology and aquaculture (mollusks primarily). One half of the library holdings (books, serials, and reprints) relate to aquaculture of marine organisms.
Subjects: Mussels, oysters, hardshell clams, scallops, surf clams, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture (phytoplankton), culture methodology of marine mollusks, marine environment, shellfish hatcheries, aquaculture facility/hatchery management, commercial aquaculture, research and development.
Use Policy: Currently limited to active aquaculture researchers at state, federal, and academic facilities. Use by industry members on prior approval basis and only for direct/active aquaculture operations.
Services: Response to mail requests (limited), onsite reference service, interlibrary loan (limited), dissemination of publications/materials as available in reprint.
Holdings Size: 100 books; 4,000 technical reports; 200 periodicals; 2 abstracting and indexing publications.

Delaware

16.

Name: **Marine Studies Library**

Sponsor: University of Delaware; Founded 1973

Address: Cannon Laboratory, College of Marine Studies, University of Delaware, Lewes, DE 19958

Phone/Hours: (302) 645-4290

Staff: 1 support

Director: Mildred Weer, Branch Library Supervisor

Contacts: Patricia A. Fitzgerald, Head of Branch Libraries, (302) 738-2965; Jonathan Penn, Interlibrary Loan Librarian, (302) 738-2236.

Programs: 8-12 and 1-4:30 M-F

Subjects: Oysters, algae, nutrition of aquatic animals, genetics and breeding of aquatic animals, marine environment, land use and coastal zone management.

Use Policy: No user restrictions

Services: Telephone reference service, onsite reference service, searches of commercially available online files (members, plus 15 percent; nonmembers, cost plus 50 percent and \$10), interlibrary loan.

Holdings Size: Entire library collection--5,500 books; 3,403 technical reports; 120 periodicals; 125 microform titles; 3 vertical file drawers; 15 abstracting and indexing publications; 3 audiovisuals.

District of Columbia

17.

Name: **Georgetown Center**

Sponsor: National Oceanic and Atmospheric Administration, EDIS, ESIC, LISD; Founded 1971

Address: 3300 Whitehaven Street, OA/D822, Washington, DC 20235

Phone/Hours: (202) 634-7346 / 8-4:30 M-F

Staff: 1 professional, 1 support

Director: Ida Lewis

Programs: Programs in the Office of Sea Grant and the National Marine Fisheries Service provide scientific, technical, legal, and institutional base needed for the development of aquaculture in cooperation with other agencies and groups; facilitate early application of research results by information dissemination and external activities. Books and journals, scientific reports, directories, aquaculture thesaurus, and access to aquaculture data bases available.

Subjects: Mussels, oysters, trout, salmon, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, largemouth bass, striped bass, hardshell clams, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, fish control (marginal - means pesticides), freshwater production systems, marine and estuarine environments, dissemination of information and extension activities, aquaculture processing operations, commercial aquaculture, research and development.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files, copying services/coin-operated machines, blowback for microfiche/film, interlibrary loan, current awareness/SDI services, referral, searches of manual indexes and abstracts,

Holdings Size: bibliographies.
10,000 books and technical reports; 500 periodicals; 55 microform titles; 15 abstracting and indexing publications.

18.

Name: **Office of Advocacy for Agri-business and Ocean Industries**
Sponsor: U.S. Small Business Administration; Founded 1976
Address: 1441 L Street NW, Washington, DC 20416
Phone/Hours: (202) 634-7613 / 8:30-5 M-F
Staff: 1 professional, 2 support
Contacts: Robert F. Clairmont, Advocate for Agri-business and Ocean Industries, (202) 634-7613.
Programs: Represent small business against the government and review rules and regulations promulgated towards the industry. Provide management, financial, and procurement assistance.
Subjects: Aquaculture-related information obtained on an as-needed basis. Mussels, oysters, trout, salmon, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, largemouth bass, striped bass, hardshell clams, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, worker health and safety, regulations, permits, licenses, financing and loan programs, aquaculture marketing, aquaculture processing operations, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: No cost for services.

Florida

19.

Name: **U.S. Army Corps of Engineers Library, Jacksonville District**
Sponsor: U.S. Army Corps of Engineers; Founded 1978
Address: U.S. Army Corps of Engineers, ATTN: Library, P.O. Box 4970, Jacksonville, FL 32232
Phone/Hours: (904) 791-3643 / 7-3:30 M-F
Staff: 2 professional, 2 support
Contacts: Oriana B. West, District Librarian, (904) 791-3643.
Programs: Aquaculture: Southeast region, mostly freshwater, some coastal waters, and inland waterways.
Subjects: Aquatic plants culture, freshwater production systems, estuarine environment, land use and coastal zone management, water resources management.
Use Policy: Nonmembers of the corps may not check out any materials; however, they may use them in the library.
Services: Telephone reference service, response to mail requests, onsite reference service, searches of automated files maintained by the center, searches of commercially available online files, copying services/coin-operated machines, blowback for microfiche/film, interlibrary loan, current awareness/SDI services, referral, searches of manual indexes and abstracts, bibliographies, consulting services, dissemination of publications/materials.
Holdings Size: 4,000 books; 15,000 technical reports; 300 periodicals.

20.

Name: **F.I.T. Library**
Sponsor: Florida Institute of Technology
Address: University Boulevard, Melbourne, FL 32901
Phone/Hours: (305) 723-3701 Ext. 271
Staff: 5 professional, 12 support, 30 workstudy
Director: Dr. L.L. Henson, Director

Contacts: Tori Smith, Interlibrary Loan, Ext. 450; Debie Mosby, Reference Librarian, Ext. 413; Judy Henson, Associate Director of Public Services, Ext. 130.

Programs: Must meet the needs of F.I.T. as well as of the outside community.

Subjects: Nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, fish control (marginal - means pesticides).

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files, copying services/coin-operated machines, interlibrary loan, referral, searches of manual indexes and abstracts, bibliographies, consulting services, dissemination of publications/materials.

Publications: *Future of the Indian River System* - periodically; Abstracts of the Symposium on FIRST.

Holdings Size: 100 books; 100 Government Document Reports; 172 periodicals; 1,000 microform titles; 4 vertical file drawers; 6 or 7 abstracting and indexing publications; 1 audiovisual.

21.

Name: Rosenstiel School of Marine and Atmospheric Science Library

Sponsor: University of Miami; Founded 1941

Address: 4600 Rickenbacker Causeway, Miami, FL 33149

Phone/Hours: (305) 350-7207 / 8:30-5 M-F

Staff: 1 professional, 9 support

Contacts: Kay K. Hale, Librarian, (305) 350-7207; Mary Danio, Reference, (305) 350-7207; Sara Jeffreys, Interlibrary Loans, (305) 350-7207.

Programs: To serve the academic and research needs of the school's graduate students, faculty, and staff. Division of Biology and Living Resources includes aquaculture and fisheries in its Master's and Ph.D. program. School also serves researchers in the South Florida area. Library specializes in marine and tropical (warmwater) aquaculture and related topics.

Subjects: Mussels, oysters, trout, salmon, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, hardshell clams, crabs, conch, eels, etc., nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, fish control (marginal - means pesticides), marine and estuarine environments, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, aquaculture processing operations, commercial aquaculture, research and development.

Use Policy: Anyone may use resources in the library - only members of the University of Miami community may borrow materials.

Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files (cost-recovery basis), copying services/coin-operated machines (\$.05/page), interlibrary loan (\$2.50 handling and postage, \$.15/page photocopying, plus \$.50 per additional request in same order), current awareness/SDI services, referral, searches of manual indexes and abstracts, dissemination of publications/materials.

Publications: *Bulletin of Marine Science* - quarterly, individual: \$35, institution: \$75; *Proceedings of the Gulf and Caribbean Fisheries Institute* - annual, \$20.

Holdings Size: 800 books; 950 technical reports; 35-50 periodicals; 45 microform titles; 1 vertical file drawer; 3 major commercial abstracting and indexing subscriptions.

22.

Name: Jensen Beach Campus Library
Sponsor: Florida Institute of Technology; Founded 1958
Address: 1707 N.E. Indian River Drive, Jensen Beach, FL 33457
Phone/Hours: (305) 334-4200 Ext. 60 / 5-11 Sun.; 8 a.m.-11 p.m. M-Th.; 8 a.m.-4 p.m. F; 10-4 Sat.
Staff: 2 professional, 3 support, 1 volunteer
Director: Mrs. E.S. Harris, Branch Librarian
Contacts: Roberta Fitzpatrick, Reference/Interlibrary Loan Librarian, (305) 334-4200 Ext. 61; Sandra Hawken, Evening Librarian/Supervisor, (305) 334-4200 Ext. 61; Eduardo Lopez, Saturday/Sunday Supervisor, (305) 334-4200 Ext. 61.
Programs: Florida Institute of Technology provides educational and research programs of distinction in the physical sciences, the life sciences including psychology, engineering and the engineering sciences, management and technology, and specialized courses, services, and seminars related to those programs.
Subjects: Oysters, freshwater prawns, marine shrimp, crayfish, catfish, hardshell clams, Homarus and spiny lobster, freshwater production systems, marine and estuarine environments, aquaculture facility/hatchery management, commercial aquaculture.
Use Policy: No user restrictions
Services: Telephone reference service, consulting services.
Holdings Size: 213 books; 59 periodicals; 3 audiovisuals.

23.

Name: Marine Research Laboratory Library
Sponsor: Florida Department of Natural Resources; Founded 1955
Address: 100 Eighth Avenue SE, St. Petersburg, FL 33701
Phone/Hours: (813) 896-8626 / 8-5 M-F
Staff: 51 professional, 1 support
Director: George E. Henderson, Laboratory Supervisor
Contacts: Mary Krost, Librarian, (813) 896-9626.
Programs: Research of species recreationally and commercially important to Florida marine ecology. The collection covers all areas of marine science, about a quarter of which is devoted to aquaculture information.
Subjects: Nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, reproductive physiology of species, marine and estuarine environments, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, regulations, permits, licenses, research and development.
Use Policy: The library is primarily structured for staff use, but the public is welcomed and assisted in using the resources on site.
Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files, interlibrary loan, current awareness/SDI services, referral, searches of manual indexes and abstracts, dissemination of publications/materials.
Publications: *Memoirs of the Hourglass Cruises* - irregular; Florida Marine Research Publications - irregular.
Holdings Size: 1,915 books; 31,400 technical reports (includes reprints of articles); 400 periodicals (includes journals received on exchange); small microform collection; 3 vertical file drawers.

24.

Name: **Florida Game and Fresh Water Fish Commission**
Address: 820 East Robson Street, Lakeland, FL 33805
Phone/Hours: (813) 688-3754 / 8-5 M-F
Staff: 2 professional
Director: Col. Robert M. Brantly, Director
Contacts: Tom Drda, Fisheries Biologist, (813) 688-3754; Mike Knox, Fisheries Biologist, (813) 688-3754.
Programs: Protection and enhancement of aquatic life. The aquaculture project is designed to monitor the scope and status of the industry and provide an extension service and information. A substantial library of books and technical publications available for use at our office extension; assistance provided on request.
Subjects: Freshwater prawns, baitfish, catfish, largemouth bass, tilapia, ornamental fish, frogs, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, fish control (marginal - means pesticides), other technical information, freshwater production systems, aquaculture facility/hatchery management, regulations, permits, licenses, other management and regulatory information, aquaculture processing operations, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, dissemination of publications/materials.
Holdings Size: Large collection of books, technical reports, periodicals.

Hawaii

25.

Name: **Oceanic Institute Library**
Sponsor: Oceanic Institute; Founded 1968
Address: Makapuu Oceanic Center, Waimanalo, HI 96795
Phone/Hours: (808) 259-7951 / 7:45-4:30 M-F
Staff: 1 professional
Contacts: Stephanie A. Strickland, Librarian, (808) 259-7951 Ext. 30.
Programs: Aquaculture and aquatic resource management, engineering and aquatic systems management, fisheries development, and education and training. Currently receiving technical reports and journal subscriptions, exclusively. All materials are related to the Institute's missions.
Subjects: Marine shrimp, baitfish, nutrition of aquatic animals, genetics and breeding of aquatic animals, water quality in aquaculture, marine environment, aquaculture facility/hatchery management, water resources management, commercial aquaculture.
Use Policy: Restricted to researchers with library permission
Services: Response to mail requests, interlibrary loan.
Holdings Size: 1,000 books; 3,000 technical reports; 40 periodicals; 4 vertical file drawers.

26.

Name: **Aquaculture Development Program**
Sponsor: Department of Land and Natural Resources, State of Hawaii;
Address: Room 359, 335 Merchant Street, Honolulu, HI 96813
Phone/Hours: (808) 548-5495 / 7:45-4:30 M-F
Staff: 8 professional, 3 support, 1 volunteer
Contacts: John Corbin, Manager, (808) 548-5495; Richard Fassler, Information Specialist, (808) 548-5495; Jane Sexton, Information Specialist, (808) 548-5495.

Programs: Statewide planning and coordination; support services in species and site counseling, marketing, and disease diagnosis and prevention; funding and co-funding of research development and demonstration projects. Maintain a working library on all aspects of aquaculture divided into a species section and a general section. Collection of more than 2,000 slides for use in talks and canned shows. Film and videotape library. Produce a variety of publications and films dealing with aquaculture in Hawaii.

Subjects: Seaweeds, mussels, oysters, trout, salmon, freshwater prawns, marine shrimp, baitfish, catfish, hardshell clams, economically important brackish water and marine plants and animals, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of animals, aquatic plants culture, water quality in aquaculture, pond management, Pacific island aquaculture resources, Asian aquaculture, freshwater production systems, marine and estuarine environments, intensive and semi-intensive land-based systems, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, regulations, permits, licenses, financing and loan programs, aquaculture marketing, aquaculture planning, commercial aquaculture, research and development.

Use Policy: State residents, national and international government and public agencies, all private sector entities when potential benefits for Hawaii exist.

Services: Response to mail requests, onsite reference service, referral, searches of manual indexes and abstracts, dissemination of publications/materials, counseling on all aspects of commercial aquaculture.

Publications: *Aquaculture in Hawaii* (Information Bulletin) - 3-4 times/yr.; technical reports - as-needed basis; informational handouts - as-needed basis; seafood marketing materials - as-needed basis.

Holdings Size: 500 books; 1,500 technical reports; 12 periodicals, most since 1979; films, videotapes, and 2,000+ slides.

27.

Name: Anuenue Library

Sponsor: Anuenue Fisheries Research Center; Founded 1979

Address: Area 4 Sand Island, Honolulu, HI 96819

Phone/Hours: (808) 845-9561 / 8-4:30 M-F

Staff: 1 professional

Director: Michael Fujimoto, Chief Biologist

Contacts: C. Hamasu, Librarian, (808) 845-9561.

Programs: Research center includes Macrobrachium rosenbergii hatchery, water chemistry lab, and farm extension program. Participates in the research and development of prawn farming to the point of economic viability. Catfish- and trout-rearing tanks to support sport fish programs through stocking. Aquaculture library specializes in culture of *M. rosenbergii* and related information: water quality, toxicity, hatchery management, algae, etc. Also includes material on other aquatic species.

Subjects: Freshwater prawns, nutrition of aquatic animals, disease of aquatic animals and its control, water quality in aquaculture, freshwater production systems, aquaculture facility/hatchery management, research and development.

Use Policy: Interlibrary loan unavailable. Online searches unavailable to general public.

Services: Telephone reference service, response to mail requests, searches of automated files maintained by the center, copying services/coin-operated machines, referral, bibliographies, dissemination of publications/materials.

Publications: Numerous articles related to *Macrobrachium rosenbergii*.

Holdings Size: 450 books; technical reports mixed with books and vertical file; 60 periodicals; 14 vertical file drawers.

28.

Name: **Science and Technology Reference Division, Hamilton Library**
Sponsor: University of Hawaii, Hamilton Library; Founded 1968
Address: 2550 The Mall, Honolulu, HI 96822
Phone/Hours: (808) 948-8263 / 8-5 M-F
Staff: 6 professional, 1 support, 1 volunteer
Contacts: Paula Szilard, Head, Science and Technology Reference Division, (808) 948-8263; May Suzuki, Head, Cooperative Services, Interlibrary Loan, (808) 948-8568.

Programs: Academic library supporting instruction, research, and extension services; as state institution, also serves industry. Within an academic environment, provides information on biology, culture, economics, legislation, statistics, etc.

Subjects: Mussels, oysters, trout, salmon, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, largemouth bass, striped bass, hardshell clams, other aquatic species, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, fish control (marginal - means pesticides), other technical information, freshwater production systems, marine and estuarine environments, other production systems, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, worker health and safety, regulations, permits, licenses, financing and loan programs, aquaculture marketing, other management and regulatory information, aquaculture processing operations, commercial aquaculture, research and development.

Use Policy: Borrowing privileges restricted to state residents 18 years of age and over. Other access unrestricted.

Services: Telephone reference service, response to mail requests, searches of commercially available online files (direct charges plus airmail postage), copying services/coin-operated machines, blowback for microfiche/film (direct charges plus airmail postage), interlibrary loan (issuing library costs plus postage), current awareness/SDI services (direct charges plus airmail postage), referral, searches of manual indexes and abstracts, bibliographies, consulting services.

Holdings Size: An integrated collection of 1.75 million volumes--aquaculture not separately enumerated.

Iowa

29.

Name: **Iowa Cooperative Fishery Research Unit**
Sponsor: U.S. Fish and Wildlife Service/Iowa State University/Iowa Conservation Commission; Founded 1965
Address: Science Hall II, Iowa State University, Ames, IA 50011
Phone/Hours: (515) 294-3057 / 8-5 M-F
Staff: 2 professional, 5-10 support
Contacts: John G. Nickum, Leader, (515) 294-3057; Wayne A. Hubert, Assistant Leader, (515) 294-3057.

Programs: The Iowa CFRU has major missions in fishery research, education, and extension including the provision of information to the general public upon request. Aquaculture programs include work on rearing of larval fishes, culture of coolwater species (i.e., walleye, pike, muskellunge), spawning channel catfish, and domestic and international aquaculture development. Books, journals, pamphlets, mimeographed reports, journal reprints, and research data are included in holdings. Only reprints and

Subjects: pamphlets are available for distribution without charging for duplication costs.
Use Policy: Trout, baitfish, catfish, walleye, esocids, nutrition of aquatic animals, disease of aquatic animals and its control, water quality in aquaculture, freshwater production systems, waste water, water reuse, aquaculture facility/hatchery management, commercial aquaculture, research and development.

Services: No user restrictions

Publications: Telephone reference service, response to mail requests, limited onsite reference service, searches of commercially available online files, copying services/coin-operated machines, referral, program-related consulting services, dissemination of publications/materials.

Holdings Size: Annual Report, Iowa CFRU - annual.
100 books; 500 technical reports; 50 periodicals; 4-5 vertical file drawers; 100 abstracting and indexing publications.

Kansas

30.

Name: **Farrell Library**
Sponsor: Kansas State University
Address: Manhattan, KS 66506
Phone/Hours: (913) 532-6516 / 8-5 M-F
Director: Brice Hobrock, Dean of Libraries
Contacts: Susan Miller, Science Librarian, (913) 532-6516; Susan Casement, Librarian for Agriculture in Developing Countries, (913) 532-6516; Sue Rusk Williams, ILL Librarian, (913) 532-6516.

Programs: The Resources on Developing Countries department serves the Farming Systems Research Program and acquires materials on aquaculture practiced in conjunction with other agricultural activities in developing countries. We receive everything FAO issues commercially; other materials acquired selectively.

Subjects: Freshwater production systems, water resources management, pollution and pollution control, aquaculture marketing.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, searches of automated files maintained by the center, searches of commercially available online files (at cost), coin-operated machines, blowback for microfiche/film (coin-operated), interlibrary loan (user pays cost in excess of \$5).

Holdings Size: Small collection includes more than 70 technical reports.

Kentucky

31.

Name: **University of Louisville Library**
Address: Belknap Campus, Louisville, KY 40292
Phone/Hours: (502) 588-6757 / 7-11 daily
Director: John T. Demos, Dean
Contacts: Ruth Culpepper, Interlibrary Loan Librarian, (502) 588-6749; J. Kulkarni, Science Librarian, (502) 588-5986.

Programs: A general university library with an aquaculture collection.

Subjects: Mussels, baitfish, catfish, largemouth bass, disease of aquatic animals and its control, water quality in aquaculture, fish control (marginal - means pesticides), freshwater production systems, aquaculture facility/hatchery management, water resources management, pollution and pollution control, research and development.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests (at

Holdings Size: cost), searches of automated files maintained by the center, searches of commercially available online files, copying services/coin-operated machines (\$.05/copy), blowback for microfiche/film, interlibrary loan, bibliographies (at cost) 120 books; 450 technical reports; 10 periodicals; 8-12 abstracting and indexing publications.

Louisiana

32.

Name: LUMCON Library
Sponsor: Louisiana Universities Marine Consortium (LUMCON); Founded 1978
Address: Star Route, Box 541, Chauvin, LA 70344
Phone/Hours: (504) 594-7552, or (504) 568-7027 / 8-4:30 M-F
Staff: 1 professional
Contacts: Mary Katherine Politz, Administrative Coordinator/Librarian, (504) 594-7552.
Programs: Study of marine and estuarine processes (physical and biological) as they occur in and affect Louisiana. LUMCON works with state universities (officially) and with many state and federal agencies and individuals concerned with the coast (unofficially). Presently, research and activities are focused on copepod feeding and reproduction and local wetland loss and deterioration. Most often the materials relate to shrimp and menhaden caught in open waters.
Subjects: Oysters, marine shrimp, crayfish, menhaden, marine and estuarine environments, land use and coastal zone management, water resources management.
Use Policy: Staff or student body of member universities have priority
Services: Telephone reference service, response to mail requests, onsite reference service, copying services/coin-operated machines, interlibrary loan.
Holdings Size: 700 books; 250 periodicals; 20 microform titles; 2 abstracting and indexing publications.

33.

Name: Middleton Library
Sponsor: Louisiana State University; Founded 1860
Address: Baton Rouge, LA 70803
Phone/Hours: (504) 388-2217 / 7:15-midnight M-F; Sat. 8-5; Sun. 2-midnight
Staff: 47 professional, 85 support
Director: George J. Guidry, Jr., Director
Contacts: Beth Paskoff, Science Bibliographer, (504) 388-8511.
Programs: Support all research and teaching programs in aquaculture. Extensive collection in aquaculture; additional strength in agricultural economics, marine science, and wetlands.
Subjects: Oysters, freshwater prawns, marine shrimp, crayfish, catfish, largemouth bass, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, freshwater production systems, marine and estuarine environments, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, regulations, permits, licenses, financing and loan programs, aquaculture marketing, aquaculture processing operations, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files (online charges + \$25), copying services/coin-operated machines, blowback for microfiche/film, interlibrary loan (\$2),

Holdings Size: referral, compilation of bibliographies.
1,800 books; 4,000 technical reports; 200+ periodicals.

Maine

34.

Name: **Maine Aquaculture Association Library**
Sponsor: Maine Aquaculture Association (MAA); Founded 1976
Address: P.O. Box 535, Damariscotta, ME 04543
Phone/Hours: (207) 882-7552 / 9-5 M-F
Staff: 3 volunteer
Contacts: Thomas Keller, MAA Executive Director, (207) 882-7552; Ellen Golden, Volunteer Supervisor, (207) 882-7552.
Programs: The Maine Aquaculture Association is a trade organization composed of approximately 90 percent of the aquaculturists in Maine. The MAA provides information to the general public and state and federal governmental agencies, undertakes promotion, and represents the interests of aquaculturists where necessary. The MAA maintains a collection of books and publications relating to finfish, shellfish, and aquatic plant aquaculture; useful government bulletins; and business publications.
Subjects: Mussels, oysters, trout, salmon, baitfish, hardshell clams, disease of aquatic animals and its control, marine and estuarine environments, aquaculture facility/hatchery management, worker health and safety, regulations, permits, licenses, financing and loan programs, commercial aquaculture.
Use Policy: No user restrictions at present
Services: Telephone reference service, response to mail requests (plus postage), copying services/coin-operated machines (cost plus \$.05 for nonmembers), dissemination of publications/materials (postage for nonmembers).
Publications: MAA Newsletter - quarterly, \$20/yr. for nonmembers.

35.

Name: **Ira C. Darling Center**
Sponsor: University of Maine at Orono; Founded 1966
Address: Ira C. Darling Center, Wapole, ME 04573
Phone/Hours: (207) 563-3146 / 24 hours/day, 7 days/week (library)
Staff: 26 professional, 7 support, 4 volunteer, plus graduate students
Director: Dr. Malvern Gilmartin, Director (based at Orono)
Contacts: Alan Russell, Administrative Officer, (207) 563-3146; Louise Dean, Librarian, (207) 563-3146.
Programs: Marine biological library affiliated with University of Maine, aquaculture library, and small marine library. Emphasis on oyster, mussel, and softshell clam cultures, algae, marine worms (expert on staff), and scallops.
Subjects: Mussels, oysters, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, setting up of hatcheries, breeding of oysters, clams, etc., marine environment, aquaculture facility/hatchery management, land use and coastal zone management, aquaculture processing operations, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, copying services/coin operated machines, blowback for microfiche/film, interlibrary loan, current awareness/SDI services (current indexes), referral, searches (by visitor) of manual indexes and abstracts.
Holdings Size: 6,000 books; 2,000 technical reports; 180-190 periodicals.

36.

Name: FMC Corporation Marine Colloids Library
Sponsor: FMC Corporation, Marine Colloids Division; Founded 1948
Address: Box 308, Rockland, ME 04841
Phone/Hours: (207) 594-4436 / 8-3 M-F
Staff: 1 professional
Contacts: Barara Swift, Librarian, (207) 594-4436.
Programs: FMC, Marine Colloids is involved in seaweed aquaculture. Various books on seaweeds around the world; reprint collection; 15 percent of collection devoted to aquaculture.
Subjects: Aquatic plants culture.
Use Policy: Patrons should call ahead and have reasonable need
Services: Telephone reference service, response to mail requests.
Holdings Size: 100 books; 1 periodical; 1 abstracting and indexing publication; 100 slides.

Maryland

37.

Name: National Agricultural Library
Sponsor: U.S. Department of Agriculture; Founded 1862
Address: 10301 Baltimore Boulevard, Beltsville, MD 20705
Phone/Hours: (301) 344-3755 / 8-4:30 M-F
Staff: 72 professional, 84 support, 17 student
Director: Richard A. Farley, Director
Contacts: Wallace C. Olsen, Chief, Field and Special Programs, (301) 344-3834; Jennie Brogdon, Head, Utilization (Interlibrary Loan) Section, (301) 344-3717; Mary Lassanyi, Head, Reference Section, (301) 344-3704.
Programs: NAL will be assigned primary responsibility for the information center required in the National Aquaculture Act of 1980.
Subjects: Freshwater prawns, crayfish, catfish, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, freshwater production systems, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, aquaculture processing operations, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, searches of automated files maintained by the center, copying services/coin-operated machines, interlibrary loan, referral, bibliographies.
Publications: Directory of Ongoing Aquaculture Research Projects; Bibliography of Aquaculture Literature; Agricultural Issues Overview on Aquaculture; Directory of Aquaculture Information Sources.
Holdings Size: 150 aquaculture and 450 related periodicals; 3,000 records in computerized data bases.

38.

Name: University of Maryland Sea Grant
Sponsor: University of Maryland Sea Grant; Founded 1976
Address: 1224 H.J. Patterson Hall, College Park, MD 20742
Phone/Hours: (301) 454-5690 / 8:30-4:30 M-F
Staff: 7 professional, 9 support
Director: Dr. R.R. Colwell, Director
Contacts: Dr. D.W. Carley, Assistant Director, (301) 454-6420; Mr. Richard Jarman, Assistant Director, (301) 454-6057; Mrs. Flora Izzo, Secretary, (301) 454-5690.
Programs: Coordinated program of research, education, and advisory

Subjects: services in the marine environment. Part of a National Sea Grant College Program aimed at applying science and technology to the management and development of marine resources.

Use Policy: Oysters, striped bass, hatchery manual being developed, marine and estuarine environments, aquaculture facility/hatchery management, commercial aquaculture, research and development.

Services: No user restrictions

Publications: Telephone reference service, response to mail requests, referral, bibliographies, consulting services, dissemination of publications/materials.

Maryland Sea Grant (newsletter) - bimonthly; Sea Grant Notes (in-house newsletter) - bimonthly.

39.

Name: **Horn Point Environmental Lab**

Sponsor: University of Maryland Center for Environmental Studies; Founded 1973

Address: Horn Point Laboratory, Cambridge, MD 21613

Phone/Hours: (301) 228-8200

Staff: 22 professional, 25 support, 5 volunteer

Director: Dr. Ian Morris, Director

Programs: Shellfish research laboratory and oyster pilot production hatchery.

Subjects: Oysters, striped bass, hardshell clams, sturgeon, disease of aquatic animals and its control, genetics and breeding of aquatic animals, economics, freshwater production systems, estuarine environment, aquaculture facility/hatchery management, financing and loan programs, aquaculture marketing, commercial aquaculture, research and development.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, interlibrary loan, referral.

Holdings Size: 110 books; 250 technical reports; 20 periodicals; 150 microform titles; 25 vertical file drawers; 30 abstracting and indexing publications; 1000 slides.

Massachusetts

40.

Name: **MIT Sea Grant Program Marine Resources Information Center**

Sponsor: Massachusetts Institute of Technology Sea Grant Program; Founded 1971

Address: MIT Sea Grant Program; 77 Massachusetts Avenue, Building E38-320, Cambridge, MA 02139

Phone/Hours: (617) 253-5944 / 1-5 M-F

Staff: 2 professional, 2 support

Contacts: Barbara Steen-Elton, Information Specialist, (617) 253-5944

Programs: Making useful information available to any student, citizen, company, or government concerned with the well-being and thoughtful use of the nation's marine resources.

Subjects: Mussels, oysters, trout, salmon, freshwater prawns, marine shrimp, crayfish, catfish, hardshell clams, algae, eels, crab, lobster, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, freshwater production systems, marine environment, land use and coastal zone management, regulations, permits, licenses, research and development.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, copying services/coin-operated machines (\$.05/copy), interlibrary loan.

Publications: *MIT Sea Grant Quarterly Report* - quarterly; *Research in Ocean*

Holdings Size: Engineering - quarterly, \$10/year.
150 books; 50 technical reports; 8 periodicals; 1/2 vertical file drawer; 2 abstracting and indexing publications.

41.

Name: New Alchemy Institute Library
Sponsor: New Alchemy Institute; Founded 1969
Address: 237 Hatchville Road, East Falmouth, MA 02536
Phone/Hours: (617) 563-2655 / 9-5 M-F; Saturdays May-September
Staff: 21 professional and support, 10 volunteer
Director: Gary Hirshberg, Executive Director
Contacts: Peter Burgoon, Interim Aquaculture Director, (617) 563-2655;
Linda Gussman, Interim Aquaculture Director, (617) 563-2655.
Programs: To investigate and promote ecologically and economically appropriate aquaculture techniques, especially those which can be applied on a family or community scale, and to seek ways to integrate these with other technologies, including gardening, tree crops, solar greenhouses, and other applications of non-fossil fuel energy. Deals primarily with very small-scale systems involving solar technologies. Much of the scientific research on water chemistry, feeds, etc., could be applied in other contexts.
Subjects: Carp, tilapia, grass carp, bullheads, water quality in aquaculture, solar energy in aquaculture, hydroponics, freshwater production systems.
Use Policy: Staff size limits number of requests
Services: Telephone reference service, response to mail requests.
Publications: New Alchemy Quarterly, free with membership; nonmembers \$35/yr. or \$1.50 each.

42.

Name: Marine Biological Laboratory Library
Sponsor: Marine Biological Laboratory; Founded 1888
Address: Water Street, Woods Hole, MA 02543
Phone/Hours: (617) 548-3705 / 8-4:30 M-F
Staff: 5 professional, 7 support
Director: Dr. Paul Gross, Director
Contacts: Catherine Norton, Assistant Librarian, (617) 548-3705 Ext. 435;
Judy Ashmore, Reference, (617) 548-3705 Ext. 436; Laurel Swain,
ILL, (617) 548-3705 Ext. 436.
Subjects: Mussels, hardshell clams, horseshoe crabs, marine and estuarine environments, water resources management, pollution and pollution control, aquaculture marketing.
Use Policy: MBL member or through interlibrary loan.
Services: Telephone reference service, response to mail requests, searches of commercially available online files, copying services/coin-operated machines (\$.10), interlibrary loan.
Publications: MBL Serials List, \$5.

43.

Name: Woods Hole Research Library
Sponsor: Woods Hole Oceanographic Institution; Founded 1930
Address: Woods Hole, MA 02543
Phone/Hours: (617) 548-1400 Ext. 2512 / 8-5 M-F
Staff: 1 professional, 11 support
Director: Carolyn P. Winn, Research Librarian
Contacts: Colleen Hurter, Reference/Interlibrary Loan Librarian, (617) 548-1400 Ext. 2708; Anna-Maria Peirson, Documents, (617) 548-1400 Ext. 2269; Arthur Gaines, Marine Science Advisor, (617) 548-1400 Ext. 2389.

Programs: Fundamental problems in growth, nutrition, physiology, and effects of pollutants on aquaculture-related organisms. Institution goals - research and education in oceanography and related marine sciences. Sea Grant Program - use and conservation of marine resources. As part of the comprehensive marine science collection, aquaculture is well represented. Lack trade journals in the field. Strong in publications from the third world.

Subjects: Trout, hardshell clams, Dino flagellates (Red Tide), lobster (American), nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, marine and estuarine environments, land use and coastal zone management, pollution and pollution control, research and development.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files (\$10 + connect time), copying services/coin-operated machines (\$2 + .15/page), blowback for microfiche/film (\$2 + .15/page), interlibrary loan, referral, searches of manual indexes and abstracts (limited), bibliographies (limited), dissemination of publications/materials.

Publications: *Collected Reprints* - annual, \$60; *Bibliography of Technical Reports* - annual, free to libraries/information centers; *Accession List (Document Library)* - monthly, free to libraries/information centers; *Oceanographic Index* (Ed. by Mary Sears); *Directory of Marine Science Libraries and Information Centers*, \$5.

Holdings Size: Total marine science - 15,000 books; 10,000 microfiche and paper technical reports; 10+ abstracting and indexing publications; 20+ videocassettes. 3,400 Index WHOI publications in computerized data bases; 2 mag tapes.

44.

Name: **State Lobster Hatchery and Research Station**

Sponsor: Commonwealth of Massachusetts; Founded 1948

Address: Division of Marine Fisheries, Box 894, Vineyard Haven, MA 02568

Phone/Hours: (617) 693-0060 / 8-4 M-F

Staff: 2 professional, 3 support, 2 volunteer

Contacts: John T. Hughes, Director, (617) 693-0060.

Programs: Develop methods, techniques, and systems to grow lobsters commercially. Propagation program of hatching, rearing, and liberating lobsters into coastal waters. Involved in genetics, disease, and diets for lobsters of various sizes.

Subjects: Lobsters, nutrition, disease, genetics, and breeding of lobsters, marine environment, aquaculture facility/hatchery management, commercial aquaculture, research and development.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, consulting services, dissemination of publications/materials.

Holdings Size: 50 books; 50 technical reports; 5 periodicals.

Michigan

45.

Name: **Inland Lakes Research and Study Center**

Sponsor: Institute of Water Research; Founded 1961

Address: 334 Natural Resources Building, Michigan State University, East Lansing, MI 48824

Phone/Hours: (517) 353-3742 / 8-5 M-F

Staff: 5 professional, 2 support

Director: Jon Bartholic, Acting Director
Contacts: Lois G. Wolfson, Water Resources Coordinator, (517) 353-3742; Joseph Ervin, Supervisor of Research, (517) 353-6682.
Programs: Enables on-site research by MSU faculty in water quality, lake and watershed management, aquaculture, and basic aquatic research; provides a facility for an inland lake extension service and educational program in water-related areas. Technical and Completion Reports in water resources and agriculture are available; extension bulletins and periodicals can be obtained or are in stock.
Subjects: Largemouth bass, aquatic plants culture, water quality in aquaculture, freshwater production systems, marshes, wetlands, water resources management, pollution and pollution control, research and development.
Use Policy: No user restrictions
Services: Response to mail requests, referral, dissemination of publications/materials.
Publications: *Water Impacts* - monthly; Technical reports - bimonthly; conference proceedings - 2-4/yr., \$5.
Holdings Size: Small library (2 small rooms) of books; 47 technical reports (IWR publications); 10-15 periodicals (from other organizations); 103 vertical file drawers (IWR reprints plus miscellaneous authors); 1 audiovisual.

Minnesota

46.
Name: **Entomology, Fisheries, and Wildlife Library**
Sponsor: University of Minnesota; Founded 1946
Address: 375 Hodson Hall, 1980 Folwell Avenue, St. Paul, MN 55108
Phone/Hours: (612) 373-1741 / 8 a.m.-5 p.m. MTThF; 8 a.m.-9 p.m. W; 12-4 p.m. Sat.; summer hours 8-4:30 M-F
Staff: 1 professional, 3 support
Contacts: Katherine Chiang, Reference Bibliographer/Instructor, (612) 373-1741.
Programs: Support teaching and research activities of the students, staff, and faculty of the fisheries specialty in Department of Entomology, Fisheries, and Wildlife. General in all aspects, detailed for areas related to Minnesota interests - freshwater, catfish bait, etc.
Subjects: Mussels, oysters, trout, salmon, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, largemouth bass, striped bass, hardshell clams, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, fish control (marginal - means pesticides), freshwater production systems, marine and estuarine environments, aquaculture facility/hatchery management, land use and coastal zone management, pollution and pollution control, regulations, permits, licenses, commercial aquaculture, research and development.
Use Policy: Services restricted to University staff and students. Non-University users must have special privilege card to check out materials. A fee-based service available to business and industry.
Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files (\$15 + computer time), coin-operated machines (\$.10/copy), interlibrary loan, referral.
Holdings Size: In Fisheries: 2,000 books; 7,000 technical reports; 150 periodicals; 500 (FAO) microform titles; 4 vertical file drawers; 5 abstracting and indexing publications.

Mississippi

47.

Name: **The Gunter Library**
Sponsor: Gulf Coast Research Laboratory; Founded 1947
Address: East Beach, Ocean Springs, MS 39564
Phone/Hours: (601) 875-2244 Ext. 253 / 8-12 and 1-5 M-F
Staff: 1 professional, 2 support
Contacts: M'Stewart Ware, Senior Librarian, (601) 875-2244 Ext. 213.
Programs: Research: Support the state's fishing industry through research and assist in the development of new fisheries industries by providing technical expertise and research. Education: Provide facilities (dormitories, classrooms, vessels, gear, etc.) for graduate-level marine science instruction for in-state institutions and affiliated institutions in 17 other states. A collection of reprints, books, and journal titles is maintained in part to support a summer course in marine aquaculture and throughout the year to support oyster hatchery and other research sections. This collection contains 5-8 percent of our total holdings.
Subjects: Oysters, freshwater prawns, marine shrimp, crayfish, striped bass, blue crab, nutrition of aquatic animals, disease of aquatic animals and its control, water quality in aquaculture, marine and estuarine environments, hatchery environment, aquaculture facility/hatchery management, land use and coastal zone management, pollution and pollution control, research and development.
Use Policy: Library is open to public use on walk-in basis for reference only (no circulation). Limited interlibrary loan to recognized libraries by special arrangement. No reference or searches done.
Services: Copying services/coin-operated machine (\$.20/page), interlibrary loan by special arrangement, referral (limited).
Publications: *Gulf Research Reports* - annual, \$5.
Holdings Size: 100 books; 10 periodicals; 1 (ASFA) abstracting and indexing publication.

48.

Name: **Mississippi State University Library**
Sponsor: Mississippi State University
Address: P.O. Drawer 5408, Mississippi State, MS 39762
Phone/Hours: (601) 325-3060 / 8-5 M-F
Director: Dr. George Lewis
Contacts: Martha Irby, Interlibrary Loan Librarian, (601) 325-3060; Mary Downey, Reference Librarian, (601) 325-3060.
Subjects: Crayfish, catfish.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files, copying services/coin-operated machines, blowback for microfiche/film, interlibrary loan, current awareness/SDI services, searches of manual indexes and abstracts.

Missouri

49.

Name: **Aquascience Research Group, Inc., Information Clearinghouse**
Sponsor: Aquascience Research Group, Inc.; Founded 1974
Address: 1100 Gentry, North Kansas City, MO 64116
Phone/Hours: (816) 842-5936, (800) 821-5643 (outside Missouri) / 8-4 M-F

Staff: 3 professional, 4 support
Contacts: John Farrell Kuhns, President/Reference Specialist, (816) 842-5936; Robert R. Rofen, Vice-President/Reference Specialist, (800) 227-1210.
Programs: Information clearinghouse for aquaculture/mariculture/aquariculture; consulting/laboratory services; product development; sales. Books, periodicals, reprints; associated with Aquatic Research Institute (library) and with Journal of Aquariculture and Aquatic Sciences.
Subjects: Oysters, trout, salmon, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, largemouth bass, striped bass, hardshell clams, aquarium species, tilapia, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, fish control (marginal - means pesticides), aquatic chemistry, freshwater production systems, marine environment, thermal production systems, aquaculture facility/hatchery management, water resources management, pollution and pollution control, worker health and safety, laboratory programs, disease control, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service. All other services involve charges: searches of automated files maintained by the center, searches of commercially available online files, copying services/coin-operated machines, interlibrary loan, searches of manual indexes and abstracts, bibliographies, consulting services, dissemination of publications/materials, subscriptions, book acquisitions.
Publications: *Journal of Aquariculture and Aquatic Sciences* - 4 issues/volume, \$40/volume (U.S.A., Canada, Mexico), \$48/volume (Foreign); *FISHDRUG/TXT* - irregular, \$2.50/pg.
Holdings Size: 500 (ARG) and 50,000+ (ARI) books; 150,000+ (ARI) technical reports; 14 (ARG) and 2500+ (ARI) periodicals; 100+ (ARI) abstracting and indexing publications; 3,000 35mm slides, 10,000+ (ARI); vertical file drawers.

Nebraska

50.
Name: CY Thompson Library
Sponsor: University of Nebraska - Lincoln Libraries; Founded 1874
Address: East Campus, Lincoln, NE 68583-0717
Phone/Hours: (402) 472-2802 / 7:30 a.m.-11 p.m. M-F; 10 a.m.-5 p.m. Sat.; 1:30 p.m.-11 p.m. Sun.
Staff: 4 professional, 3 support
Director: Lyle Schreiner, Chairperson, Sciences and Technology Division
Contacts: Dana Rippy, Assistant Professor, (402) 472-2802; Sue Gilleland, Clerical Assistant I, (402) 472-2802; Richard Voeltz, Associate Professor, (402) 472-2756.
Programs: Teaching, research, extension; Forestry, Fisheries, and Wildlife Department; School of Life Sciences; Cedar Point Biological Station. Holdings border the research level, above the study level.
Subjects: Trout, crayfish, catfish, largemouth bass, striped bass, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, fish control (marginal - means pesticides), freshwater production systems, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, worker health and safety, regulations, permits, licenses, financing and loan programs, aquaculture

Use Policy: marketing, aquaculture processing operations, commercial aquaculture, research and development.
Services: No user restrictions
Response to mail requests - direct to UN-L main library, copying services/coin-operated machines, interlibrary loan - direct to UN-L library.
Publications: Nebraska Agricultural Experimental Station Bulletins; Fish and Wildlife Reference Materials Service.
Holdings Size: 40,000 books; 3,000 technical reports; 200 periodicals; 250 abstracting and indexing publications; DIALOG.

New Jersey

51.

Name: **New Jersey Marine Advisory Service**
Sponsor: New Jersey Sea Grant Program; Founded 1968
Address: New Jersey Marine Science Consortium, Fort Hancock, NJ 07732
Phone/Hours: (201) 872-1300 / 8:30-4:30 M-F
Staff: 4 professional
Director: Dr. Robert Abel, Sea Grant Director
Contacts: Stewart Tweed, Marine Extension Agent, (609) 465-5115; Gef Flimlin, Marine Extension Agent, (201) 349-1245.
Programs: To provide marine educational programs for the citizens of New Jersey and Mid-Atlantic states, including pollution problems, legal aspects of coastal development, and technical information for the commercial fishing industry. Marine Extension Agents assist aquaculturists and participated in planning and implementing the Mid-Atlantic Aquaculture Conference. Agents developed personal files on New Jersey's commercial species and compiled data on aquaculture activities in other Sea Grant programs. Information available on state water quality criteria, condemned waters, rearing techniques, major predators, and potential diseases.
Subjects: Mussels, oysters, hardshell clams, nutrition of aquatic animals, genetics and breeding of aquatic animals, water quality in aquaculture, predator control, marine and estuarine environments, aquaculture facility/hatchery management, land use and coastal zone management, pollution and pollution control, financing and loan programs, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, dissemination of publications/materials.
Publications: *New Jersey Shorelines* - quarterly; *Commercial Fishermen's Newsletter* - monthly.

New Mexico

52.

Name: **Aquaculture Library**
Sponsor: New Mexico Department of Game and Fish; Founded 1977
Address: State Capitol, Santa Fe, NM 87503
Phone/Hours: (505) 827-2945, 827-2236 / 8-5 M-F
Staff: 2 professional
Contacts: Thomas M. Moody, Chief of Hatcheries, (505) 827-2236; Steven Henry, Wildlife Disease Specialist, (505) 827-2945; R.N. McCleskey, Chief of Fisheries, (505) 827-2236.
Programs: Rearing and stocking trout for sport fishing. Composed primarily of periodicals, reprints, etc., concerning trout culture.
Subjects: Trout, salmon, nutrition of aquatic animals, disease of aquatic animals and its control, water quality in aquaculture, freshwater production systems, aquaculture facility/hatchery

Use Policy: management, research and development.
Users may access originals only in-shop. No lending services available.

Services: Telephone reference service, response to mail requests, onsite reference service, consulting services, dissemination of publications/materials.

Holdings Size: 50 books; 250 technical reports; 5 periodicals.

New York

53.

Name: **Division of Marine Resources**

Sponsor: New York State Department of Environmental Conservation; Founded 1970

Address: Building 40, Stony Brook, NY 11794

Phone/Hours: (516) 751-7900 / Regular working hours of the Department.

Staff: 2 professional

Director: A.S. Taormina, Director, Division of Marine Resources

Contacts: Dr. Anthony D'Agostino, Senior Research Scientist, (516) 751-7900; Stephen Hendrickson, Marine Resources Specialist, (516) 751-7900.

Programs: Manages the state's marine resources: shellfish, finfish, crustacea, plants, and environments. Supports mariculture as one function of that responsibility. Conducts some research; provides management expertise. Primary focus on molluscan shellfish and developing a genetic strain of blue lobsters.

Subjects: Oysters, hardshell clams, crustacea (lobsters, artemia, daphnia), nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, marine and estuarine environments, aquaculture facility/hatchery management, land use and coastal zone management, regulations, permits, licenses, commercial aquaculture, research and development.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference services, referral, dissemination of publications/materials.

Holdings Size: 1,000+ books; 500+ technical reports; 500+ periodical subscriptions; 15 microform titles; 20 vertical drawers; 400+ slides.

54.

Name: **Marine Sciences Research Center**

Sponsor: State University of New York; Founded 1968

Address: Stony Brook, NY 11794

Phone/Hours: (516) 246-7710 / 8:30-5 M-F

Staff: 31 professional

Director: J.R. Schubel, Director

Contacts: F.G. Roberts, Assistant Director, (516) 246-6789; Jeri Schoof, Assistant to Director, (516) 246-6543; Mareike Ludkewycz, Librarian, (516) 246-6009.

Programs: The Center is establishing an aquaculture (mariculture) experiment station. In its initial stages, the station will concentrate research efforts on marine/estuarine shellfish, a few species of anadromous fishes, and seaweed mariculture for biomass production. Beginning to develop an aquaculture library - will soon have the most extensive holdings in this subject in downstate New York.

Subjects: Mussels, oysters, marine shrimp, striped bass, hardshell clams, nutrition of aquatic animals, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, marine and estuarine environments, aquaculture facility/hatchery

management, land use and coastal zone management, water resources management, pollution and pollution control, regulations, permits, licenses, aquaculture marketing, aquaculture processing operations, commercial aquaculture, research and development.

Use Policy:

No user restrictions

Services:
Response to mail requests (\$4 per report), copying services/coin-operated machines (\$.08/copy).

Publications:
Marine Sciences Newsletter - quarterly, \$4/rept.; *Coastal Ocean Pollution Assessment News* - quarterly; *Special Report Series*, \$4/rept.; *Technical Report Series*, \$4/rept.

55.

Name:

Sea Grant Extension Program

Sponsor:

Cornell University; Founded 1970

Address:

39 Sound Avenue, Riverhead, NY 11901

Phone/Hours:

(516) 727-3910 / 9-5 M-F

Staff:

13 professional, 6 support

Director:

Bruce DeYoung, Program Coordinator

Contacts:

Chris Smith, Specialist, (516) 727-3910.

Programs:

Provide educational programs and advisory services to mariculture industries. Energy-saving and culture techniques information.

Subjects:

Mussels, oysters, marine shrimp, striped bass, hardshell clams, disease of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, marine and estuarine environments, aquaculture facility/hatchery management, pollution and pollution control, financing and loan programs, aquaculture marketing, aquaculture processing operations, commercial aquaculture, research and development.

Use Policy:

Limited to state residents

Telephone reference service, response to mail requests, onsite reference service, searches of automated files maintained by the center, searches of commercially available online files, copying services/coin-operated machines, blowback for microfiche/film, interlibrary loan, current awareness/SDI services, referral, searches of manual indexes and abstracts, bibliographies, consulting services, dissemination of publications/materials.

Publications:

Commercial Fisheries Update - monthly; *Coastlines* - quarterly.

56.

Name:

Sea Grant Extension Program

Sponsor:

New York Sea Grant Institute; Founded 1971

Address:

Fernow Hall, Cornell University, Ithaca, NY 14853

Phone/Hours:

(607) 256-2162 / 8-5 M-F

Staff:

20 professional, 8 support, 100+ volunteer

Director:

Bruce T. Wilkins, Program Leader

Contacts:

Marjorie Markell, Publications Specialist, (607) 256-2162.

Programs:

Promote the wise use of coastal resources. Limited to shellfish aquaculture research.

Subjects:

Hardshell clams, nutrition of aquatic animals, disease of aquatic animals and its control, aquatic plants culture, water quality in aquaculture, marine environment, land use and coastal zone management, pollution and pollution control, financing and loan programs, aquaculture marketing.

Use Policy:

No user restrictions

Services:

Telephone reference service, response to mail requests.

Publications:

Coastlines (newsletter) - quarterly, free for N.Y.S. residents, \$4/2 years for nonresidents.

North Carolina

57.

Name: NCSU Aquaculture Demonstration Project
Sponsor: University of North Carolina Sea Grant College Program; Founded 1979
Address: Rt. 2, Box 305, Aurora, NC 27806
Phone/Hours: (919) 322-4054 / 10-6 M-F
Staff: 3 professional, 9 support
Contacts: John Foster, Advisory Services, (919) 322-4054.
Programs: Assist development of aquaculture in North Carolina; maintain demonstration farm; provide aquaculture information: species, products, site selection, facility design, and culture techniques.
Subjects: Oysters, trout, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, largemouth bass, striped bass, hardshell clams, eels, tilapia, soft-shell crabs, freshwater production systems, marine and estuarine environments, aquaculture facility/hatchery management, water resources management, regulations, permits, licenses, financing and loan programs, aquaculture marketing, budgeting, aquaculture processing operations, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, referral, dissemination of publications/materials.
Publications: Various publications related to eels and clams, plus a biweekly newspaper column, "Aquaculture."
Holdings Size: 75 books; 700 technical reports; 10 periodicals; 15 abstracting and indexing publications; 8 audiovisuals.

58.

Name: North Carolina Marine Resources Center/Roanoke Island
Sponsor: North Carolina Department of Administration, Office of Marine Affairs; Founded 1976
Address: P.O. Box 967, Manteo, NC 27954
Phone/Hours: (919) 473-3493 / 9-5 M-F; 1-5 Sat. and Sun.
Staff: 4 professional, 3 support, 7 volunteer
Director: Rhett B. White, Director
Contacts: Hilda Livingstone, Educational Coordinator, (919) 473-3493.
Programs: A marine education and research facility operated by the state. Aquaculture collection: 8-10 percent through Marine Advisory Service, films and publications in library; cooperative efforts with N.C. State University eel farm at Aurora, N.C.
Subjects: Soft-shell crabs, eels, estuarine environment, land use and coastal zone management, financing and loan programs, aquaculture marketing, commercial aquaculture.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, interlibrary loan, referral, searches of manual indexes and abstracts, dissemination of publications/materials, films, working demonstration projects.

Oklahoma

59.

Name: Oklahoma Department of Wildlife Conservation Library
Sponsor: Oklahoma Department of Wildlife Conservation and Oklahoma Conservation Commission; Founded 1909

Address: P.O. Box 53465, 1801 North Lincoln Boulevard, Oklahoma City, OK 73105
Phone/Hours: (405) 521-3851, 3852, 3853 / 8-5 M-F
Staff: 18 professional, 44 support
Director: Steven Ken Lewis, Director
Contacts: Kim Erickson, Chief of Fisheries, (405) 521-3721; Dr. Harold Namminla, Assistant Chief Fisheries, Research, (405) 521-3721; Don Driscoll, Assistant Chief Fisheries, Hatcheries, (405) 521-3721.
Programs: Primary goal is to improve fishing in Oklahoma. Stock state waters and answer inquiries about fish culture. Most of the library material concerns fish and fish management.
Subjects: Mussels, trout, freshwater prawns, baitfish, largemouth bass, striped bass, nutrition of aquatic animals, disease of aquatic animals and its control, water quality in aquaculture, fish control (marginal - means pesticides), freshwater production systems, aquaculture facility/hatchery management, water resources management, pollution and pollution control.
Use Policy: No user restrictions
Services: Copying services/coin-operated machines (\$4/copy).

60.

Name: Oklahoma Cooperative Fishery Research Unit
Sponsor: Oklahoma State University, Oklahoma Department of Wildlife Conservation, U.S. Fish and Wildlife Service and Langston University; Founded 1967
Address: LSW 433, Oklahoma State University, Stillwater, OK 74078
Phone/Hours: (405) 624-6342 or 6343 / 8-5 M-F
Staff: 5 professional, 2 support
Contacts: O. Eugene Maughan, Leader, (405) 624-6342; Vickie Gregory, Administrative Assistant, (405) 624-6342; Helen Murray, Secretary, (405) 624-6342.
Programs: Evaluation of low-density aquaculture in cages and ponds, development of techniques for small landowners interested in aquaculture. Available materials consist of results of studies and annual reports of activities.
Subjects: Channel catfish, tilapia, water quality in aquaculture, cage culture and low-density fish culture, plant control, freshwater production systems.
Use Policy: No user restrictions
Services: Interlibrary loan
Publications: Annual Report.

Oregon

61.

Name: Marine Science Center Library
Sponsor: Oregon State University; Founded 1976
Address: Library, Marine Science Center, Newport, OR 97365
Phone/Hours: (503) 867-3011 / 8-5 M-F
Contacts: 1 professional, 5 support
Programs: Marilyn Guin, Librarian, (503) 867-3011.
The Marine Science Center is both a research and teaching branch of Oregon State University. Emphasis on marine and estuarine species, primarily salmon and oysters. Library emphasizes general aquaculture techniques and biological information on marine species.
Subjects: Oysters, salmon, hardshell clams, disease of aquatic animals and its control, marine and estuarine environments, aquaculture facility/hatchery management.
Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files (computer and telecommunication charge), copying services/coin-operated machines (\$.05/sheet), blowback for microfiche/film (\$.05/sheet), interlibrary loan (postage and copying costs), referral, consulting services.

Holdings Size: 250 books; 3,000 technical reports; 50 periodicals; 10 vertical file drawers; 3 abstracting and indexing publications.

Pennsylvania

62.

Name: Benner Spring Fish Research Station Library
Sponsor: Pennsylvania Fish Commission
Address: RD 1, Box 485, Bellefonte, PA 16823
Phone/Hours: (814) 355-4837 / 8-4 M-F
Staff: 5 professional, 6 support, 1 volunteer
Director: Vincent A. Mudrak, Chief, Fisheries Research Section
Contacts: Thomas R. Bender, Fish Culture Research Biologist, (814) 355-4837; Thomas A. Wiggins, Fisheries Technician, (814) 355-4837.
Programs: Diet development, genetics, water quality, hatchery management, disease control, numerous reprints, journals, texts, etc.
Subjects: Trout, salmon, striped bass, brine shrimp, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, fish control (marginal - means pesticides), freshwater production systems.
Use Policy: Must demonstrate need, follow procedures, and have an I.D.
Holdings Size: 500 books; 500 technical reports; 15 periodicals.

63.

Name: Lamar Fish Cultural Development Center
Sponsor: U.S. Fish and Wildlife Service; Founded 1966
Address: P.O. Box 75, Lamar, PA 16848
Phone/Hours: (717) 726-4247 / 8-4:30 M-F
Staff: 3 professional, 1 support
Contacts: Ivan B. McElwain, Director, (717) 7260-4247; Ronald G. Howey, Assistant Director, (717) 726-4247.
Programs: Developing new intensive rearing techniques and transportation methods for American shad and other sensitive species of fish. Information resources on all aspects of fish husbandry, transportation, disease control, water chemistry, pollution control, etc., covering most species reared in hatcheries.
Subjects: Trout, American shad, walleye, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, culture, marking, and transporting techniques, freshwater production systems, aquaculture facility/hatchery management, pollution and pollution control, regulations, permits, licenses, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, referral, searches of manual indexes and abstracts, bibliographies, dissemination of publications/materials.
Publications: Lamar NFH and FCDC Semi-Annual Report; Lamar NFH and FCDC Annual Report; Decapsulation of Brine Shrimp, *Artemia salina*, Cysts (Information Leaflet No. 80-06); Brief History of Susquehanna River Shad (Information Leaflet No. 81-03); A Review of American Shad Restoration Efforts on the Susquehanna River (Information Leaflet No. 81-04); Proceedings of 1981

Workshop on American Shad Culture, Transportation, and Marking (Information Leaflet No. 82-01); *Handling and Transporting Juvenile American Shad* (Information Leaflet No. 80-02); *Degassing Supersaturated Water for Fish Culture* (Information Leaflet No. 81-02); *The Use of Self-Feeders in Fish Culture* (Information Leaflet No. 81-01); *The American Shad, Alosa sapidissima, Bibliographic References with Emphasis on Culture, Tagging, and Transportation* (Information Leaflet No. 82-02).

Holdings Size: 100 books; 100+ technical reports; 25 periodicals.

64.

Name: **National Fishery R and D Laboratory Library**
Sponsor: U.S. Fish and Wildlife Service; Founded 1978
Address: R.D. 4, Box 47A, Wellsboro, PA 16901
Phone/Hours: (717) 724-3322 / 7:30-4 M-F
Staff: 1 professional, 1 support
Contacts: Kate D. Hickey, Library Technician, (717) 724-3322.
Programs: Research in aquaculture of coolwater fish species and Atlantic salmon, and in aquacultural engineering. About 75 percent of collection deals with fish culture and fish physiology, especially coolwater species; remainder with related toxicology and engineering materials.
Subjects: Salmon, coolwater fish (i.e., pike, walleye, muskellunge), nutrition of aquatic animals, disease of aquatic animals and its control, water quality in aquaculture, aquacultural engineering, freshwater production systems, aquaculture facility/hatchery management, research and development.
Use Policy: Individual loans only to employees of the U.S. Fish and Wildlife Service. Library will answer reference questions, photocopy materials, and loan materials to other libraries or institutions.
Services: Telephone reference service, response to mail requests, onsite reference service, copying services/coin-operated machines (limited), interlibrary loan, referral, searches of manual indexes and abstracts (limited), dissemination of publications/materials.
Holdings Size: 1,700 books; 3,600 technical reports and reprints; 95 periodicals; 100 microform titles; 10 abstracting and indexing publications.

Rhode Island

65.

Name: **International Center for Marine Resource Development**
Sponsor: U.S. Agency for International Development; Founded 1971
Address: Main Library, University of Rhode Island, Kingston, RI 02881
Phone/Hours: (401) 792-2938 / 9-5 M-F
Staff: 1 professional, 1 support
Director: Mary Jane Beardsley, Director, Information Services
Programs: To provide information in support of U.S. AID-funded projects for the development of small-scale fisheries in third world nations. Aquaculture of marine fish and shellfish, brackish water culture, lagoon culture, estuary/tidal area culture. Mussels, oysters, marine shrimp, baitfish, hardshell clams, tropical marine fishes, marine and estuarine environments, coral reef and lagoon mangrove environments, land use and coastal zone management, capture fisheries.
Subjects: Some limitations
Use Policy: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files (direct cost), interlibrary loan, referral, searches of
Services:

Publications: manual indexes and abstracts (limited), bibliographies (limited), consulting services (AID contracts), dissemination of publications/materials (free to third world).
Holdings Size: Publications list - semiannual.
100 books; 6,000 technical reports; 125 periodicals; 250 microform titles; 48 vertical file drawers; 15 abstracting and indexing publications.

66.

Name: Rhode Island Aquaculture Association Information Center
Sponsor: Rhode Island Aquaculture Association; Founded 1978
Address: P.O. Box H, Kingston, RI 02881
Phone/Hours: (401) 539-2858 / Usually 3:30-5 p.m., 3 days/week
Staff: 2 volunteer
Director: Bruce A. Rogers, President, RIAA
Contacts: Deborah T. Westin, Editor Newsletter, (401) 539-2858.
Programs: Promote aquaculture in Rhode Island (specifically) and nationwide (generally) as seafood source, and possible enhancement value as species become overfilled. Educate public and policy makers on value of aquaculture as well as the "how to do" aspects of sea farming. Generally broad related information available.
Subjects: Mussels, oysters, striped bass, hardshell clams, softshell clams, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, marine and estuarine environments, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, aquaculture marketing, local permitting processes, aquaculture processing operations, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, copying services/coin-operated machines, referral, searches of manual indexes and abstracts, bibliographies, consulting services, dissemination of publications/materials.
Publications: RIAA Newsletter - quarterly, available only to members (or \$5/yr. for associate membership).

67.

Name: Division of Marine Resources Library
Sponsor: Division of Marine Resources, University of Rhode Island; Founded 1976
Address: Narragansett Bay Campus, Narragansett, RI 02882-1197
Phone/Hours: (401) 792-6211 / 8-4:30 M-F
Staff: 1 professional
Contacts: Jane S. Miner, Manager, (401) 792-6211.
Programs: To provide information management support to the Division of Marine Resources (includes Rhode Island's Coastal Resources Center and Marine Advisory Service) and to respond to requests for marine- and coastal-related information. Primarily specie-specific information with some general overviews of the state of the art.
Subjects: Mussels, oysters, trout, salmon, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, striped bass, hardshell clams, scallops, lobster, eels, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants, culture, water quality in aquaculture, use of thermal effluent in systems, freshwater production systems, marine and estuarine

environments, closed-culture intensive systems, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, regulations, permits, licenses, aquaculture marketing, commercial aquaculture, research and development.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, copying services/coin-operated machines (over 20 pages, \$.10/page), interlibrary loan (return mailing costs), referral, searches of manual indexes and abstracts, bibliographies, dissemination of publications/materials.

Publications: *Directory of Aquaculturists in the Northeast*, \$1.

South Carolina

68.

Name: **South Carolina Sea Grant**

Sponsor: South Carolina; Founded 1978

Address: 221 Ft. Johnson Road, Charleston, SC 29412

Phone/Hours: (803) 795-9650 / 8:30-5 M-F

Staff: 12 professional, 4 support

Director: Dr. John M. Armstrong, Director

Contacts: Margaret Davidson, Assistant Director, (803) 795-9650.

Programs: The Sea Grant Consortium is a state agency which serves as a "broker" among various universities, colleges, and state agencies in South Carolina to promote and implement education, research, and extension (technical assistance) activities and to provide information on the development and use of coastal and marine resources. We possess the results of basic research on aquaculture and disseminate technical and practical information. Oysters, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, striped bass, hardshell clams, semiculture - i.e., softshell crabs and eels, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, freshwater production systems, marine and estuarine environments, closed-cycle environment, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, regulations, permits, licenses, aquaculture marketing, commercial aquaculture, research and development.

Subjects: Oysters, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, striped bass, hardshell clams, semiculture - i.e., softshell crabs and eels, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, freshwater production systems, marine and estuarine environments, closed-cycle environment, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, regulations, permits, licenses, aquaculture marketing, commercial aquaculture, research and development.

Use Policy: No user restrictions

Services: Response to mail requests, referral, dissemination of publications/materials, technical assistance service through our marine advisory program.

Publications: *Cost and Returns for Macrobrachium Grow-out in S.C.; Production Guidelines for Crawfish for S.C.*, \$5; *Intensive Hard Clam Mariculture in S.C.*, \$1; *State of the Art of Aquaculture in S.C.; Collection of Aquaculture Materials for S.C.; Marine Bait Conference Proceedings - Southeast Atlantic, Macrobrachium Research in S.C.*; many reports on macrobrachium research and hard-clam culture.

69.

Name: **Cooperative Marine Resources Library**

Sponsor: South Carolina Department of Wildlife and Marine Resources, Marine Resources Division and the College of Charleston; Founded 1972

Address: P.O. Box 12559, Charleston, SC 29412

Phone/Hours: (803) 795-6350 Ext. 205 / 8:30-5 M-F

Staff: 1 professional, 2 support

Contacts: Marilyn Lewis, Librarian, (803) 795-6350 Ext. 205.

Programs: To conduct research leading to the development of mariculture as

a viable enterprise in South Carolina. Approximately 10 percent of collection devoted to aquaculture, with emphasis given to organisms studied by the Marine Resources Center (i.e., oysters, freshwater prawns, marine shrimp, baitfish, striped bass, hardshell clams, sturgeon, soft-shell crabs, channel bass). The library makes every effort to maintain a balanced collection of aquaculture information.

Subjects: Oysters, freshwater prawns, marine shrimp, baitfish, striped bass, hardshell clams, sturgeon, soft-shell crabs, channel bass, nutrition of aquatic animals, water quality in aquaculture, nursery and pond grow-out of prawns, freshwater production systems, marine and estuarine environments, aquaculture facility/hatchery management, aquaculture marketing, research and development.

Use Policy: Anyone is welcome to use the library, but only Center staff and students and faculty of Charleston Higher Education Consortium institutions may check out library materials.

Services: Telephone reference service, response to mail requests, onsite reference service, copying services/coin-operated machines (\$.15/page), blowback for microfiche/film (\$.15/page), interlibrary loan (\$3+), dissemination of publications/materials.

Holdings Size: 800 books and technical reports; 6 periodicals; 3 abstracting and indexing publications.

70.

Name: Clemson University Cooperative Extension Service
Address: Room 102, Long Hall, Clemson University, Clemson, SC 29631
Phone/Hours: (803) 656-3113 / 8-5 M-F
Staff: 3 professional, 1 support
Director: Dr. W.T. O'Dell, Director
Contacts: Lamar Robinette, Associate Professor, (803) 656-3113; Jeff Foltz, Assistant Professor, (803) 656-3111; Arnie Eversole, Associate Professor, (803) 656-3111.
Programs: Freshwater and saltwater extension, teaching, and research.
Subjects: Oysters, freshwater prawns, crayfish, catfish, largemouth bass, hardshell clams, eels, nutrition of aquatic animals, disease of aquatic animals and its control, water quality in aquaculture, freshwater production systems, marine and estuarine environments, aquaculture marketing, commercial aquaculture.
Use Policy: No user restrictions
Services: Response to mail requests, onsite reference service, referral.

South Dakota

71.

Name: U.S. Geological Survey, South Dakota District
Sponsor: U.S. Department of the Interior; Founded 1897
Address: Rm. 317, Federal Building, 200 Fourth Street SW, Huron, SD 57350
Phone/Hours: (605) 352-8651 Ext. 258 / 8-5 M-F
Programs: Water resources data collection and investigations; extensive water quantity and quality data available on request.
Subjects: Water quality in aquaculture.
Use Policy: No user restrictions
Services: Response to mail requests.

72.

Name: Spearfish Fisheries Center
Sponsor: U.S. Fish and Wildlife Service
Address: P.O. Box 158, Spearfish, SD 57783
Phone/Hours: (605) 642-3616; (605) 642-2544 / 7:30-4 M-F
Contacts: Arden J. Trandahl, Director, (605) 642-3616; Gary L. Reinitz, Chief, Diet Testing Development Center, (307) 643-5757; Raymond Phillips, Hatchery Manager, (605) 642-4786.

Programs: Fish nutrition, hatchery management, and aquaculture training. Publications are mainly on nutrition.

Subjects: Trout, salmon, some coolwater species (pike, perch, walleye), nutrition of aquatic animals, culture techniques, training, freshwater production systems, aquaculture facility/hatchery management, research and development.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, referral, consulting services (limited), dissemination of publications/materials.

Publications: Approximately 20 scientific publications related to fish nutrition, fish diets, etc.

Holdings Size: 50 books; 200 technical reports.

Tennessee

73.

Name: Agriculture-Veterinary Medicine Library
Sponsor: University of Tennessee-Knoxville; Founded 1978
Address: P.O. Box 1071, Knoxville, TN 37901
Phone/Hours: (615) 974-7338 / 8-11:30 M-F; 9-6 Sat.; 1-11:30 Sun.
Staff: 4 professional, 10 support
Contacts: Don Jett, Head Librarian, (615) 974-7338; Jean Taylor, Senior Library Assistant, (615) 974-7338.

Programs: This is an agriculture library with general information in books and periodicals dealing with aquaculture.

Subjects: Mussels, trout, freshwater prawns, baitfish, crayfish, catfish, largemouth bass, striped bass, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, fish control (marginal - means pesticides), freshwater production systems, aquaculture facility/hatchery management, aquaculture marketing, commercial aquaculture.

Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, searches of commercially available online files, copying services/coin-operated machines (\$.05/page), interlibrary loan.

Publications: Forestry, Wildlife and Fisheries Tips - quarterly.

Holdings Size: 800 books; 100 technical reports; 300 periodicals.

Texas

74.

Name: Department of Wildlife and Fisheries Science Library
Sponsor: Department of Wildlife and Fisheries Science
Address: Nagle Hall, Texas A and M, College Station, TX 77843
Phone/Hours: (713) 845-1261 / 8-5 M-F
Staff: 10 professional, 25 support
Contacts: Wallace Klussman, Director, (713) 845-1261.

Programs: Provide aquaculture information statewide.

Subjects: Freshwater prawns, marine shrimp, baitfish, crayfish, catfish, largemouth bass, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of

aquatic animals, water quality in aquaculture, fish control (marginal - means pesticides), freshwater production systems, marine and estuarine environments, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, aquaculture marketing, aquaculture processing operations, commercial aquaculture, research and development.

Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, bibliographies, consulting services, dissemination of publications/materials.
Holdings Size: 25,000 books; 30,000 technical reports; 15 periodicals; 3 microform titles; 150 vertical file drawers; 5 abstracting and indexing publications; 3 audiovisuals.

75.

Name: Heart of the Hills Fishery Research Station
Sponsor: Texas Parks and Wildlife; Founded 1969
Address: Junction Star Route, Box 62, Ingram, TX 78025
Phone/Hours: (512) 866-3356 / 8-5 M-F
Staff: 7 professional, 5 support
Contacts: Richard Luebke, Director, (512) 866-3356.
Programs: Fish culture for new species and strains.
Subjects: Mussels, trout, salmon, freshwater prawns, baitfish, crayfish, catfish, largemouth bass, striped bass, hardshell clams, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, fish control (marginal - means pesticides), freshwater production systems, marine and estuarine environments, aquaculture facility/hatchery management, water resources management, pollution and pollution control, regulations, permits, licenses, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests (limited), onsite reference service, copying services/coin-operated machines, interlibrary loan.
Holdings Size: 100 books; 10,000 technical reports.

76.

Name: Port Aransas Marine Laboratory
Sponsor: University of Texas; Founded 1945
Address: Port Aransas, TX 78373
Phone/Hours: (512) 749-6796 / 8-5 M-F
Staff: 8 professional, 4 support
Director: Dr. Pat Pahler, Associate Director
Contacts: Ruth Grundy, Librarian, (512) 749-6723.
Programs: Basic research on warmwater marine finfish in spawning and reproduction; nutrition; growout systems; larval fish dynamics. Marine shrimp, marine finfish, red drum, red snapper, pompano, nutrition of aquatic animals, disease of aquatic animals and its control, water quality in aquaculture, marine environment, aquaculture facility/hatchery management, research and development.
Subjects: No user restrictions
Use Policy: Telephone reference service, response to mail requests, onsite reference service, searches of automated files maintained by center, searches of commercially available online files, copying service/coin-operated machines (\$3 minimum), interlibrary loan, searches of manual indexes and abstracts.
Publications: Contributions in Marine Science - annual, \$8/vol.
Holdings Size: 150 books; 300-500 technical reports; about 5 periodicals.

Virginia

77.

Name: U.S. Geological Survey Library
Sponsor: Department of the Interior; Founded 1879
Address: National Center, Stop 950, Reston, VA 22092
Phone/Hours: (703) 860-6671 / 7:45-4:15 M-F
Staff: 25 professional, 41 support
Director: George H. Goodwin, Jr., Chief Librarian
Contacts: Edward H. Liszewski, Assistant Chief Librarian, (703) 860-6618;
Margaret Bruns, ILL, (703) 860-6677.
Subjects: Marine and estuarine environments, land use and coastal zone management, water resources management, pollution and pollution control.
Use Policy: Open to the public. Loans to non-Survey borrowers through A.L.A. interlibrary loan form.
Services: Telephone reference service, response to mail requests, onsite reference service, interlibrary loan, copying services/coin-operated machines (\$.15/page), dissemination of publications/materials (exchange agreement). Other services available to members.
Publications: Accessions list - monthly.

78.

Name: Aquaculture Data Base
Sponsor: Funded by National Marine Fisheries Service (NMFS) through Environmental Data and Information (EDIS); Founded 1973
Address: Virginia Institute of Marine Science, Gloucester Point, VA 23062
Phone/Hours: (804) 642-2111 Ext. 298 / 8-4:30 M-F
Staff: 1 professional, 1 support
Contacts: Carol B. Rideout, Aquaculture Specialist, (804) 642-2111 Ext. 298.
Programs: Selection and dissemination of aquaculture information including all aspects - freshwater, brackish water, saltwater.
Subjects: Mussels, oysters, trout, salmon, freshwater prawns, marine shrimp, baitfish, crayfish, catfish, largemouth bass, striped bass, hardshell clams, and others too numerous to list, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, fish control (marginal - means pesticides), bioengineering and all other technical aquaculture information, freshwater production systems, marine and estuarine environments closed systems, etc., aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, worker health and safety, regulations, permits, licenses, financing and loan programs, aquaculture marketing, other management and regulatory information, aquaculture processing operations, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, searches of automated files maintained by the center, searches of commercially available online files (\$5), copying services/coin-operated machines (\$.10/page), blowback for microfiche/film (\$.10/page), referral, searches of manual indexes and abstracts, bibliographies (at cost), consulting services, dissemination of publications/materials, microfiche copies (\$.50/title).

Publications: *Aquaculture Thesaurus*, \$3; *Aquaculture Data Base* (brochure); "Recent Literature" section, The World Mariculture Society Newsletter - quarterly, \$20/year membership; "Data Base Service Provides Helpful Information on Aquaculture Needs" in *Aquaculture Magazine* 1981, 7(5) 6, 8-9; "Aquaculture Data Base Information System" in *Aquaculture* 1980, DEL-SG-19-81 (booklet), \$.30/photocopy of article.

Holdings Size: 8,500 microform titles (increases by 100/month); 8,500 records in computerized data bases.

79.

Name: **Virginia Institute of Marine Science Library**
Sponsor: College of William and Mary; Founded 1940
Address: Library, Virginia Institute of Marine Science, Gloucester Point, VA 23062
Phone/Hours: (804) 642-2111 / 8-4:30 M-F
Staff: 2 professional, 2 support
Contacts: Susan Barrick, Library Director/Reference, (804) 642-2111 Ext. 304; Janice Meadows, Assistant Librarian/ILL, (804) 642-2111 Ext. 211; Cathy Mapp, Library Assistant/VIMS Publications, (804) 642-2111 Ext. 119.
Programs: Provide library support for research and education (M.A. and Ph.D.) for graduate school of Marine Science for College of William and Mary. Holdings include books, journals, and in-house reports. Also search aquaculture on DIALOG.
Subjects: Oysters, hardshell clams, some work done with scallops, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, marine and estuarine environments, land use and coastal zone management, water resources management, pollution and pollution control, aquaculture marketing.
Use Policy: Respond to interlibrary loan requests and requests for VIMS publications. Assist patrons of library, but do not have time to do extensive reference work (by mail or phone) for non-VIMS patrons.
Services: Telephone reference service (limited), response to mail requests (limited), onsite reference service, coin-operated machines (\$.05/page), interlibrary loan and photocopies (\$.10/page), dissemination of publications/materials.
Publications: *VIMS Special Report in Applied Marine Science and Ocean Engineering (SRAMSOE)*, \$1.
Holdings Size: 150 books; 25 technical reports; 5-10 periodicals; 2-5 abstracting and indexing publications.

80.

Name: **Old Dominion University Library**
Sponsor: Old Dominion University; Founded 1930
Address: Norfolk, VA 23508
Phone/Hours: (804) 440-4154 / Session hours - 8 a.m.-midnight, M-TH; 8-6 F; 9-5 Sat.; 1 p.m.- midnight Sun.
Staff: 24 professional, 45 support
Director: Cynthia B. Duncan, Dean of Library Services
Contacts: Gail Nicula, Head, Collection Access Services, (804) 440-4154; Anne Rees, Reference Librarian/Science, (804) 440-4178; Wayne Burton, Interlibrary Loan Librarian, (804) 440-4170.
Programs: The library collects aquaculture material as it relates to graduate programs in oceanography (Ph.D. and M.S.) and marine biology (M.S.).
Subjects: Marine and estuarine environments, land use and coastal zone management, water resources management, pollution and pollution control.
Use Policy: In-library use of collection is not restricted. Only ODU

students, staff, and faculty, or Virginia Tidewater Consortium students, staff, and faculty, and local area residents may check out books. All others must apply to the Dean of Library Services for special permission status.

Services: Onsite reference service, searches of commercially available online files (various charges), copying services/coin-operated machines (\$.10/copy), blowback for microfiche/film (\$.10/page), referral.

Washington

81.

Name: **Fisheries-Oceanography Library**
Sponsor: Library, University of Washington; Founded 1950
Address: 151 Oceanography Teaching Building WB-30, University of Washington, Seattle, WA 98105
Phone/Hours: (206) 543-4279 / 8 a.m.-7 p.m. M-TH; 8-5 F; 1-5 p.m. Sun.
Staff: 2 professional, 7 support
Contacts: Tom Moritz, Assistant Librarian, (206) 543-4279; Interlibrary Loans, University of Washington Libraries, (206) 543-1899.
Programs: Aquaculture materials maintained to support ongoing research and teaching programs in the College of Ocean and Fisheries Sciences School of Fisheries.
Subjects: Mussels, oysters, trout, salmon, marine shrimp, baitfish, crayfish, catfish, largemouth bass, striped bass, hardshell clams, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, aquatic plants culture, water quality in aquaculture, fish control (marginal - means pesticides), freshwater production systems, marine and estuarine environments, aquaculture facility/hatchery management, land use and coastal zone management, water resources management, pollution and pollution control, aquaculture processing operations, commercial aquaculture, research and development.
Use Policy: Library open to general public for in-library use of materials. Borrowing privileges are established and regulated by University of Washington Libraries.
Services: Telephone reference service, response to mail requests, onsite reference services, searches of commercially available online files (DIALOG, SDC, BRS - fees vary), interlibrary loan, current awareness/SDI services, referral.

82.

Name: **National Fishery Research Center**
Sponsor: U.S. Department of the Interior, U.S. Fish and Wildlife Service; Founded 1952
Address: Building 204, Naval Support Activity, Seattle, WA 98115
Phone/Hours: (206) 442-5960 / 8-4:30 M-F
Staff: 20 professional, 33 support, 3 volunteer
Contacts: Dr. Alfred Fox, Director, (206) 442-5960; Clarence Johnson, Chief Support Services, (206) 442-5960; Dr. Rowan Gould, Microbiologist, (206) 442-5960.
Programs: Fish health research information, including development of new and improved disease control methods, fish culture methods, methods, concepts, and standards for predicting environmental impact of proposed development projects.
Subjects: Trout, salmon, disease of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, freshwater production systems, marine and estuarine environments, aquaculture facility/hatchery management, research and development.
Use Policy: No user restrictions

Services: Telephone reference service, response to mail requests, onsite reference service, interlibrary loan, dissemination of publications/materials.

83.

Name: Northwest and Alaska Fisheries Center Library
Sponsor: Department of Commerce, NOAA, National Marine Fisheries Services, Northwest and Alaska Fisheries Center; Founded 1934
Address: 2725 Montlake Boulevard East, Seattle, WA 98133
Phone/Hours: (206) 442-7795; FTS 399-7795 / 8-4:30 M-F
Staff: 1 professional, 1/2 support
Contacts: Patricia Cook, Librarian, (206) 442-7795.
Programs: Holdings include popular and scientific fisheries and biochemical literature.
Subjects: Trout, salmon, marine shrimp, nutrition of aquatic animals, disease of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, fish control (marginal - means pesticides), marine environment, land use and coastal zone management, water resources management, pollution and pollution control, aquaculture processing operations, research and development.
Use Policy: Research collection; public access restricted to in-library use and interlibrary loan.
Holdings Size: 250 books; 50 periodicals; 1 vertical file drawer; 8 abstracting and indexing publications.

West Virginia

84.

Name: Technical Information Services
Sponsor: National Fisheries Center-Leetown, U.S. Fish and Wildlife Service; Founded 1959
Address: Box 700, Kearneysville, WV 25430
Phone/Hours: (304) 725-8461; FTS 925-5211, 5212, 5213 / 8-4:30 M-F
Staff: 4 professional, 1 support
Contacts: Joyce Mann, Technical Information Officer/Reference, (304) 725-8461 Ext. 5211; Vi Catro, Library Technician/Reference, (304) 725-8461 Ext. 5212; Lora McKenzie, Library Aid/Interlibrary Loan, (304) 725-8461 Ext. 5213.
Programs: Clearinghouse for all U.S. Fish and Wildlife aquaculture information. Main information center/library for NFC information network. Library for the American Fisheries Society. Maintain online data base, FISH. Culturing of all freshwater organisms (warmwater, coolwater, coldwater). Pond aeration techniques, pond fertilization, drug clearance, water reuse systems, spawning and rearing techniques, fish disease identification, treatment, and control, fish nutrition and feed formulation, genetics, hybridization, strain evaluation.
Subjects: Trout, salmon, baitfish, largemouth bass, striped bass, nutrition of aquatic animals and its control, genetics and breeding of aquatic animals, water quality in aquaculture, freshwater production systems, aquaculture facility/hatchery management, commercial aquaculture, research and development.
Use Policy: No user restrictions
Services: Telephone reference service, response to mail requests, onsite reference service, searches of automated files maintained by the center (unlimited), searches of commercially available online files (limited), copying services/coin-operated machines, interlibrary loan, current awareness/SDI services (staff only).

Publications: referral, searches of manual indexes and abstracts, bibliographies, dissemination of publications/materials, audiovisuals, photographic slides (collecting one slide of every fish indigenous to North America). *Fish Health News* -quarterly, GPO \$12/yr, \$15 foreign mailing; *Aquaculture Bulletin* - to be issued this year; *Fish Disease Leaflets* - as issued; bibliography of NFC aquaculture publications - in review; the NFC component laboratories issue hundreds of publications too numerous to list.

Holdings Size: 20,000 books and technical reports; 750 periodicals; 500 microform titles; 20,000 reprints in vertical file collection; online data bases; abstracting and indexing publications; 8,000 slides and some films and videotapes. Approximately 4,000 records in computerized data base.

Wisconsin

85.

Name: **National Fishery Research Laboratory Library**
Sponsor: U.S. Fish and Wildlife Service; Founded 1959
Address: P.O. Box 818, La Crosse, WI 54601
Phone/Hours: (601) 783-6451 / 7:30-4 M-F
Staff: 1 professional, 1 support
Contacts: Rosalie A. Schnick, Technical Information Specialist, (601) 783-6451.
Programs: Chemical and drug registration, aquatic nuisance control methodology, effects of man's activities on large river systems.
Subjects: Trout, salmon, catfish, largemouth bass, hardshell clams, disease of aquatic animals and its control, water quality in aquaculture, fish control (marginal - means pesticides), freshwater production systems, aquaculture facility/hatchery management, water resources management, pollution and pollution control, regulations, permits, licenses.
Use Policy: Some services for staff only.
Services: Telephone reference service, response to mail requests, onsite reference services, dissemination of publications/materials. Other services available to staff.
Publications: *Investigations in Fish Control* - irregular.
Holdings Size: 3,500 books and technical reports; 150 periodicals; 200 microform titles; 24 vertical file drawers; 10 abstracting and indexing publications.

Subject Index of Information Resources Section

A

Abalone..... 9
Abalone (*Haliotis*)..... 7
Algae..... 16, 40
American shad..... 63
Aquacultural engineering..... 64
Aquaculture facility/hatchery
 management..... 2, 4, 7, 8, 9, 12, 13,
 14, 15, 18, 21, 22, 23, 24, 25, 26, 27,
 28, 29, 31, 33, 34, 35, 37, 38, 39, 44,
 46, 47, 49, 50, 51, 52, 53, 54, 55, 57,
 59, 61, 63, 64, 66, 67, 68, 69, 72, 73,
 74, 75, 76, 78, 81, 82, 84, 85
Aquaculture marketing..... 2, 8, 9, 12, 18,
 26, 28, 30, 33, 39, 42, 50, 54, 55, 56,
 57, 58, 66, 67, 68, 69, 70, 73, 74, 78,
 79
Aquaculture planning..... 26
Aquaculture processing operations..... 2,
 7, 12, 17, 18, 21, 24, 28, 33, 35, 37,
 50, 54, 55, 57, 66, 74, 78, 81, 83
Aquarium species..... 49
Aquatic chemistry..... 49
Aquatic plants..... 67
Aquatic plants culture..... 9, 17, 19, 20,
 21, 23, 24, 26, 28, 33, 35, 36, 37, 40,
 45, 49, 50, 54, 56, 62, 66, 75, 78, 81
Aquatic plants culture (phytoplankton).....
 15
Artemia..... 53
Asian aquaculture..... 26

B

Baitfish..... 9, 17, 18, 21, 24, 25, 26,
 28, 29, 31, 34, 46, 49, 57, 59, 65, 67,
 68, 69, 73, 74, 75, 78, 81, 84
Bioengineering..... 78
Blue crab..... 47
Bluegill..... 2
Breeding of lobsters..... 44
Breeding of oysters..... 35
Brine shrimp..... 62
Budgeting..... 57
Bullheads..... 41

C

Cage culture and low-density fish
 culture..... 60
Capture fisheries..... 65
Carp..... 41
Catfish..... 2, 5, 9, 17, 18, 21, 22, 24,
 26, 28, 29, 31, 33, 37, 40, 46, 48, 49,
 50, 57, 67, 68, 70, 73, 74, 75, 78, 81,
 85
Channel bass..... 69
Channel catfish..... 60

Chinese carp..... 2, 5
Clams..... 35
Closed and depuration production
 systems..... 9
Closed-culture intensive systems..... 67
Closed-cycle environment..... 68
Commercial aquaculture..... 2, 4, 12, 15,
 17, 18, 21, 22, 24, 25, 26, 28, 29, 33,
 34, 37, 38, 39, 44, 46, 49, 50, 51, 53,
 54, 55, 57, 58, 66, 67, 68, 70, 73, 74,
 78, 81, 84
Common carp..... 2
Conch..... 21
Coolwater fish..... 64, 72
Coral reef and lagoon mangrove
 environments..... 65
Crabs..... 7, 21, 40
Crayfish..... 9, 17, 18, 21, 22, 28, 32,
 33, 37, 40, 46, 47, 48, 49, 50, 57, 67,
 68, 70, 73, 74, 75, 78, 81
Crustacea..... 53
Culture techniques..... 63, 67
Culture methodology of marine mollusks.....
 15
Culture techniques..... 72

D

Daphnia..... 53
Dino flagellates (Red Tide)..... 43
Disease of aquatic animals and its
 control..... 2, 5, 6, 8, 9, 12, 13, 15,
 17, 20, 21, 23, 24, 26, 27, 28, 29, 31,
 33, 34, 35, 37, 39, 40, 43, 46, 47, 49,
 50, 52, 53, 55, 56, 59, 61, 62, 63, 64,
 66, 67, 68, 70, 73, 74, 75, 76, 78, 79,
 81, 82, 83, 85
Dissemination of information and extension
 activities..... 17

E

Economically important brackish water and
 marine plants and animals..... 26
Economics..... 39
Economics of aquaculture..... 7
Eels..... 14, 21, 40, 57, 58, 67, 68, 70
Esocids..... 29
Estuarine environment..... 2, 11, 19, 39, 58

F

Field observations..... 14
Financing and loan programs..... 9, 18, 26,
 28, 33, 34, 39, 50, 51, 55, 56, 57, 58,
 78

Fish control (marginal - means pesticides).... 2, 12, 17, 20, 21, 24, 28, 31, 46, 49, 50, 59, 62, 73, 74, 75, 78, 81, 83, 85
Freshwater prawns.... 8, 9, 12, 17, 18, 21, 22, 24, 26, 27, 28, 33, 37, 40, 46, 47, 49, 57, 59, 67, 68, 69, 70, 73, 74, 75, 78
Freshwater production systems.... 2, 4, 5, 8, 9, 13, 17, 19, 22, 24, 26, 27, 28, 29, 30, 31, 33, 37, 39, 40, 41, 45, 46, 49, 50, 52, 57, 59, 60, 62, 63, 64, 67, 68, 69, 70, 72, 73, 74, 75, 78, 81, 82, 84, 85
Frogs.... 24

G

Genetics and breeding of aquatic animals.... 2, 4, 5, 6, 9, 12, 15, 16, 17, 20, 21, 23, 24, 25, 26, 28, 33, 35, 37, 39, 40, 43, 46, 49, 50, 51, 53, 54, 55, 62, 63, 66, 67, 68, 73, 74, 75, 78, 79, 81, 82, 83, 84
Grass carp.... 41

H

Hardshell clams.... 8, 9, 12, 14, 15, 17, 18, 21, 22, 26, 28, 34, 39, 40, 42, 43, 46, 49, 51, 53, 54, 55, 56, 57, 61, 65, 66, 67, 68, 69, 70, 75, 78, 79, 81, 85
Hatchery environment.... 47
Hatchery management.... 2
Horseshoe crabs.... 42
Hydroponics.... 41

I

In situ grow-out systems.... 14
Intensive and semi-intensive land-based systems.... 26

L

Laboratory programs.... 49
Land use and coastal zone management.... 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 19, 21, 23, 26, 28, 32, 33, 35, 37, 40, 43, 46, 47, 50, 51, 53, 54, 56, 58, 65, 66, 67, 68, 74, 77, 78, 79, 80, 81, 83
Largemouth bass.... 2, 17, 18, 24, 28, 31, 33, 45, 46, 49, 50, 57, 59, 70, 73, 74, 75, 78, 81, 84, 85
Licenses.... 7, 9, 12, 18, 23, 24, 26, 28, 33, 34, 40, 46, 50, 53, 54, 57, 63, 67, 68, 75, 78, 85

Lobster disease.... 44
Lobster genetics.... 44
Lobster nutrition.... 44
Lobsters.... 6, 7, 8, 22, 40, 43, 44, 67
Local permitting processes.... 66

M

Marine and estuarine environments.... 4, 6, 7, 8, 9, 13, 17, 21, 22, 23, 26, 28, 32, 33, 34, 38, 42, 43, 46, 47, 51, 53, 54, 55, 57, 61, 65, 66, 67, 68, 69, 70, 74, 75, 77, 78, 79, 80, 81, 82
Marine environment.... 12, 14, 15, 16, 25, 35, 40, 44, 49, 56, 76, 83
Marine finfish.... 76
Marine shrimp.... 6, 7, 8, 9, 12, 17, 18, 21, 22, 25, 26, 28, 32, 33, 40, 46, 47, 49, 54, 55, 57, 65, 67, 68, 69, 74, 76, 78, 81, 83
Marking techniques.... 63
Marshes.... 45
Menhaden.... 32
Muskellunge.... 64
Mussels.... 6, 8, 9, 12, 14, 15, 17, 18, 21, 26, 28, 31, 34, 35, 40, 42, 46, 51, 54, 55, 59, 65, 66, 67, 73, 75, 78, 81

N

Nursery and pond grow-out of prawns.... 69
Nutrition of aquatic animals.... 2, 6, 8, 9, 12, 13, 15, 16, 17, 20, 21, 23, 24, 25, 26, 27, 28, 29, 33, 35, 37, 40, 43, 46, 47, 49, 50, 51, 52, 53, 54, 56, 59, 62, 63, 64, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 78, 79, 81, 83, 84

O

Ornamental fish.... 24
Oysters.... 6, 9, 12, 14, 15, 16, 17, 18, 21, 22, 26, 28, 32, 33, 34, 35, 38, 39, 40, 46, 47, 49, 51, 53, 54, 55, 57, 61, 65, 66, 67, 68, 69, 70, 78, 79, 81

P

Pacific island aquaculture resources.... 26
Paddlefish.... 2
Perch.... 72
Permits.... 7, 9, 12, 18, 23, 24, 26, 28, 33, 34, 40, 46, 50, 53, 54, 57, 63, 67, 68, 75, 78, 85

Pike..... 64, 72
Plant control..... 60
Pollution and pollution control..... 2, 6, 8, 9, 10, 11, 12, 18, 21, 23, 26, 28, 30, 31, 33, 37, 42, 43, 45, 46, 47, 49, 50, 51, 54, 55, 56, 59, 63, 66, 67, 74, 75, 77, 78, 79, 80, 81, 83, 85
Pompano..... 76
Pond construction..... 2
Pond management..... 26
Predator control..... 51
Production pond management..... 2
Purple-hinge rock scallop (*Hinnites multirugosus*)..... 7

R

Red drum..... 76
Red snapper..... 76
Regulations..... 7, 9, 12, 18, 23, 24, 26, 28, 33, 34, 40, 46, 50, 53, 54, 57, 63, 67, 68, 75, 78, 85
Reproductive physiology of species..... 23
Research and development..... 2, 4, 5, 7, 8, 12, 13, 14, 15, 17, 18, 21, 23, 24, 26, 27, 28, 29, 31, 33, 35, 37, 38, 39, 40, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 57, 63, 64, 66, 67, 68, 69, 72, 74, 75, 76, 78, 81, 82, 83, 84
Rock scallops..... 8

S

Salmon..... 4, 7, 9, 12, 13, 17, 18, 21, 26, 28, 34, 40, 46, 49, 52, 61, 62, 64, 67, 72, 75, 78, 81, 82, 83, 84, 85
Scallops..... 15, 67, 79
Seaweeds..... 26
Semiculture..... 68
Setting up of hatcheries..... 35
Shellfish hatcheries..... 15
Soft-shell crabs..... 57, 58, 68, 69
Softshell clams..... 66
Solar energy in aquaculture..... 41
Striped bass..... 2, 7, 8, 9, 11, 12, 17, 18, 28, 38, 39, 46, 47, 49, 50, 54, 55, 57, 59, 62, 66, 67, 68, 69, 73, 75, 78, 81, 84
Sturgeon..... 39, 69
Surf clams..... 15

T

Thermal production systems..... 49
Tilapia..... 2, 24, 41, 49, 57, 60
Training..... 72
Transporting techniques..... 63
Tropical marine fishes..... 65

Trout..... 4, 7, 9, 13, 17, 18, 21, 26, 28, 29, 34, 40, 43, 46, 49, 50, 52, 57, 59, 62, 63, 67, 72, 73, 75, 78, 81, 82, 83, 84, 85

U

Use of thermal effluent in aquaculture..... 8, 67

W

Walleye..... 29, 63, 64, 72
Waste water..... 29
Water quality in aquaculture..... 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 17, 20, 21, 23, 24, 25, 26, 27, 28, 29, 31, 33, 35, 37, 41, 45, 46, 47, 49, 50, 51, 52, 54, 55, 56, 59, 60, 62, 63, 64, 66, 67, 69, 70, 71, 73, 74, 75, 76, 78, 79, 81, 82, 83, 84, 85
Water resources management..... 2, 6, 8, 9, 10, 11, 12, 14, 18, 19, 21, 23, 25, 26, 28, 30, 31, 32, 33, 37, 42, 45, 49, 50, 54, 57, 59, 66, 67, 68, 74, 75, 77, 78, 79, 80, 81, 83, 85
Water reuse..... 29
Wetlands..... 45
White sturgeon..... 7
Worker health and safety..... 9, 18, 28, 34, 49, 50, 78

STATE COOPERATIVE EXTENSION SERVICE FISHERIES/AQUACULTURE SPECIALISTS
and
EXTENSION SERVICE, USDA, CONTACT PERSON FOR FISHERIES/AQUACULTURE

These individuals have been identified by Dr. James Miller, Extension Service, USDA (telephone 202-447-5468), as being extension specialists in aquaculture, fisheries, or closely related sciences at the State or local level. They are valuable technical and information resources. Note: Extension educational programs in fisheries/aquaculture are primarily directed toward the interpretation of research data for dissemination to County Extension Agents and to the target audience--landowners/aquaculturists, managers, and users--for implementation to improve fisheries/aquaculture management and production.

ALABAMA

John Jensen
Fisheries Specialist
Alabama Coop. Extension Service
Swingle Hall, Auburn University
Auburn, Alabama 36849
(205) 826-4786

ARKANSAS

D. Leroy Gray
Extension Fish and Wildlife Biologist
Cooperative Extension Service
P.O. Box 391
Little Rock, Arkansas 72203
(501) 376-6301

ALASKA

John P. Doyle
Program Leader
Marine Advisory Program
2651 Providence Avenue
Anchorage, Alaska 99504
(907) 263-1890

CALIFORNIA

Fred Conte
Aquaculture Specialist
Sea Grant Extension
Cooperative Extension
554 Hutchison Hall
University of California
Davis, California 95616
(916) 752-7490

ARIZONA

John Stair
Extension Specialist,
Wildlife and Range
Arizona Coop. Extension Service
4341 East Broadway
Phoenix, Arizona 85040
(602) 255-4033
FTS 765-4456

Robert J. Price
Acting Coordinator
Sea Grant Marine Advisory Program
Seafood Technology Specialist
101 A Cruess Hall, FS&T
University of California
Davis, California 95616
(916) 752-2193

COLORADO

Delwin E. Benson
Extension Wildlife Specialist
Department of Fishery and Wildlife
Biology
109 Wagar Building
Colorado State University
Fort Collins, Colorado 80523
(303) 491-6411

FLORIDA

Dr. Wayne R. Marion
Associate Professor
Wildlife Ecology and Extension
Wildlife Specialist
118 Newins-Ziegler Hall
University of Florida
Gainesville, Florida 32611
(904) 392-5420

CONNECTICUT

Dr. David R. Miller
Extension Forester/Environmentalist
Cooperative Extension Service
Box U-87
University of Connecticut
Storrs, Connecticut 06268
(203) 486-2839

GEORGIA

Dr. George W. Lewis
Extension Fisheries Specialist
Cooperative Extension Service
Room 209, Barrow Hall
University of Georgia
Athens, Georgia 30601
(404) 542-3447

DELAWARE

Dr. Samuel Gwinn
Director of Extension Service
Cooperative Extension Service
University of Delaware
Newark, Delaware 19711
(302) 738-2504

GUAM

David P. Crisostomo
Extension Agent
College of Agriculture and
Life Sciences
University of Guam Station
Mangilao, Guam 96913
(617) 734-2421,
ext. 359

DISTRICT OF COLUMBIA

William B. Easley
State Program Leader
Agriculture and Natural Resources
Cooperative Extension Service
929 E Street NW.
Washington, DC 20004
(202) 727-2002

James E. Miller
Program Leader
Fish and Wildlife
USDA, Extension Services,
Natural Resources Unit
Room 5925-South Agriculture Building
Washington, DC 20250
(202) 447-5468

HAWAII

Noel P. Kefford
Interim Dean
College of Tropical Agriculture and
Human Resources
3050 Maile Way, Gilmore 202
University of Hawaii
Honolulu, Hawaii 96822
(808) 948-8234

IDAHO

Dr. George W. Klontz
Department Chairman
Fisheries Resources
College FWR Building
University of Idaho
Moscow, Idaho 83843
(208) 885-6336

ILLINOIS

T. W. Curtin
Extension Forester
219 Mumford Hall
1301 W. Gregory Drive
University of Illinois
Urbana, Illinois 61801

(217) 333-2777

MAINE

Lewis Wyman
State Program Coordinator
Cooperative Extension Service
100 Winslow Hall
University of Maine
Orono, Maine 04469

(207) 581-2211

INDIANA

Herbert C. Krauch
Extension Wildlife Specialist
Department of Forestry and
Natural Resources
Forestry Building, Purdue University
W. Lafayette, Indiana 47907

(317) 494-3586

MARYLAND

Dr. Tony Mazzaccaro
Assistant Director
Marine Advisory Programs
Maryland Cooperative
Extension Service
Symons Hall
University of Maryland
College Park, Maryland 20742

(301) 454-4190

IOWA

R. B. Moorman
Extension Wildlife Conservationist
Department of Animal Ecology
Iowa State University
Ames, Iowa 50011

(515) 294-7429

MASSACHUSETTS

Donald R. Progulske
Professor of Wildlife Biology
324 Holdsworth Hall
University of Massachusetts
Amherst, Massachusetts 01003

(413) 545-2757

KANSAS

F. Robert Henderson
State Program Leader
Wildlife Damage Control
Umberger Hall
Kansas State University, CES
Manhattan, Kansas 66506

(913) 532-5785

MICHIGAN

Dr. Donald L. Garling
Aquaculture and Fisheries Specialist
Fisheries and Wildlife Department
Natural Resources Building
Michigan State University
East Lansing, Michigan 48824

(517) 355-7493

LOUISIANA

Larry de la Bretonne
Extension Assistant, Aquaculture
202-A Knapp Hall
Louisiana State University
Baton Rouge, Louisiana 70803

(504) 388-4569

MINNESOTA

Dr. Douglas Tave
Extension Aquaculture Specialist
Entomology, Fisheries, and Wildlife
University of Minnesota
St. Paul, Minnesota 55108

(612) 373-1016

MISSISSIPPI

Dr. Thomas L. Wellborn, Jr.
Leader, Extension Wildlife and
Fisheries
P.O. Box 5405
Mississippi State, Mississippi 39762
(601) 325-3174

Dr. Thomas E. Schwedler
Area Wildlife and Fisheries
Specialist
Delta Branch Experiment Station
Stoneville, Mississippi 38776
(601) 686-9311

Dr. John R. Randy McMillan
Area Fisheries Specialist
Delta Branch Experiment Station
Stoneville, Mississippi 38776
(601) 686-9311

NEBRASKA

Dr. Ron J. Johnson
Extension Wildlife Specialist
Dept. of Forestry, Fisheries,
and Wildlife
202 Natural Resources Hall
University of Nebraska
Lincoln, Nebraska 68583-0819
(402) 472-6823

NEVADA

Donald A. Klebenow
Professor, Wildlife Management
Renewable Natural Resources
University of Nevada
Reno, Nevada 89557
(702) 784-4616

NEW HAMPSHIRE

Stanley W. Knowles
Associate Program Leader (Acting)
Room 110-C, Pettee Hall
University of New Hampshire
Durham, New Hampshire 03824
(603) 862-1029

NEW JERSEY

Dr. C.B. Grimes
Assistant Professor
Fisheries Management
Department of Horticulture
and Forestry
Cook College - Rutgers University
New Brunswick, New Jersey 08903
(201) 932-9333

NEW MEXICO

James E. Knight
Extension Wildlife Specialist
Cooperative Extension Service
Box 4901
New Mexico State University
Las Cruces, New Mexico 88001
(505) 646-1164

NEW YORK

Dr. John W. Kelley
Associate Professor
Department Extension Leader
Cooperative Extension Service
Dept. of Natural Resources,
Fernow Hall
Cornell University
Ithaca, New York 14853-0188
(607) 256-2114

NORTH CAROLINA

Dr. David J. DeMont
Extension Fisheries Specialist
P.O. Box 5577
North Carolina State University
Raleigh, North Carolina 27650
(919) 737-2741

NORTH DAKOTA

Dr. Myron D. Johnsrud
Director, Cooperative Extension
Service
North Dakota State University
Fargo, North Dakota 58102
(701) 237-8944

PUERTO RICO

Dr. Alejandro Ayala
Director
Extension Service
College Station
University of Puerto Rico
Mayaguez, Puerto Rico 00708
(809) 833-7637

OHIO

Thomas M. Stockdale
Extension Wildlife Specialist
375-C ANRPP Building
2021 Coffey Road
The Ohio State University
Columbus, Ohio 43210
(614) 422-1981

RHODE ISLAND

Dr. Thomas P. Husband
Cooperative Extension Service
Dept. of Forest and Wildlife
Management
University of Rhode Island
Kingston, Rhode Island 02881
(401) 792-2370

OKLAHOMA

Dr. R.W. (Bill) Altman
Wildlife Specialist, CES
017 Agricultural Hall
Oklahoma State University
Stillwater, Oklahoma 74074
(405) 624-5515
FTS 728-4325

SOUTH CAROLINA

Dr. D.L. Robinnette
Extension Wildlife Specialist
Associate Professor of Entomology
and Econ. Zoology
Room 102, Long Hall
Clemson University
Clemson, South Carolina 29631
(803) 656-3113

OREGON

Dr. Richard A. Tubb
Professor of Fisheries
Department of Fisheries and Wildlife
Nash Hall, 104C
Oregon State University
Corvallis, Oregon 97331
(503) 754-4531
FTS 425-4531

TENNESSEE

Dr. Thomas K. Hill
Extension Fisheries Specialist
Cooperative Extension Service
Box 1071
University of Tennessee
Knoxville, Tennessee 37901
(615) 974-7164

PENNSYLVANIA

Dr. Terry Rader
Associate Professor
Forest Resources
109 Ferguson Building
Pennsylvania State University
University Park, Pennsylvania 16802
(814) 863-0401

TEXAS

Milo J. Shult,
Project Supervisor
Wildlife and Fisheries
Room 110, Nagle Hall
Texas A&M University
College Station, Texas 77843
(713) 845-7471

Billy Higginbotham
Fisheries Specialist
P.O. Box 38
Overton, Texas 75684
(214) 834-6191,
ext. 26

Dr. James T. Davis
Fisheries Specialist
Cooperative Extension Service
Nagle Hall, Room 202
Texas A&M University
College Station, Texas 77843
(713) 845-7471

Dr. S. K. Johnson
Fish Disease Specialist
Cooperative Extension Service
Nagle Hall, Room 216
Texas A&M University
College Station, Texas 77843
(713) 845-7471

Don Steinbach
Associate Fisheries Specialist
Cooperative Extension Service
Nagle Hall, Room 202
Texas A&M University
College Station, Texas 77843
(713) 845-7471

VERMONT

Linda G. Marek
Extension Water Resources Specialist
School of Natural Resources
601 Main Street
University of Vermont
Burlington, Vermont 05405
(802) 656-3258

VIRGIN ISLANDS
Walter I. Knausenberger
Natural Resources Liaison Person
Virgin Islands Extension Service
P.O. Box L, Kingshill
College of the Virgin Islands
St. Croix, Virgin Islands 00850
(809) 778-0246

VIRGINIA
Dr. Louis A. Helfrich
Extension Specialist, Fisheries
Cooperative Extension Service
152 Cheatham Hall
VPI & SU
Blacksburg, Virginia 24061
(703) 961-5059

WASHINGTON
Steve C. Harbell
Area Marine Resources Extension Agent
Courthouse, Box 552
Montesano, Washington 98563
(206) 249-4332

WEST VIRGINIA
William N. Grafton
Extension Specialist, Forestry
329 Percival Hall
West Virginia University
Morgantown, West Virginia 26506
(304) 293-3721

WISCONSIN
Dr. Robert L. Ruff
Extension Wildlife Specialist
Department of Wildlife Ecology
226 Russell Labs
University of Wisconsin
Madison, Wisconsin 53706
(608) 263-2071
(608) 262-2671

WYOMING

J. Daniel Rodgers
Extension Range Management Specialist
P.O. Box 3354
University Station
Laramie, Wyoming 82071
(307) 766-5258

Questionnaire

Directory of Aquaculture Information Sources

1. Information Center or Library Name: _____

2. Parent Organization/Sponsoring Agency (Please respond when information center is part of a larger organization): _____

3. Mailing Address: _____

_____ City _____ State _____ Zip

4. Telephone Number: (_____) _____
Area Code Toll-free number (if applicable)

5. Year Established: _____

6. Director (Head of the center): _____
Name _____ Title _____

7. Number of Staff (Indicate number of professional and support positions, including students):

7a. Professional _____ 7b. Support _____ 7c. Volunteer _____

8. Person to Contact (Person(s) to whom inquiries regarding the center may be directed. If different individuals serve as Interlibrary Loan Officer and Reference Specialist/ Librarian, please indicate both and their functions):

(1) _____
Name _____ Title and/or function _____ Telephone _____

(2) _____
Name _____ Title _____ Telephone _____

(3) _____
Name _____ Title _____ Telephone _____

8a. Hours of Operation: _____

9. Objectives and Programs (Describe the goals of the organization, specific divisions concerned with aquaculture and their programs):

10. Describe briefly the scope of aquaculture-related information resources at your information center or library (Also indicate the percent of the total center's resources devoted to aquaculture information):

11. Areas of specialized aquaculture focus and activity (Check all areas describing your focus):

A. Specific Aquatic Species Information

- (01) Mussels
- (02) Oysters
- (03) Trout
- (04) Salmon
- (05) Freshwater prawns
- (06) Marine shrimp
- (07) Baitfish
- (08) Crayfish
- (09) Catfish
- (10) Largemouth bass
- (11) Striped bass
- (12) Hardshell clams
- (13) Other aquatic species (Please list): _____

C. Aquaculture Environments

- (21) Freshwater production systems
- (22) Marine
- (23) Estuarine
- (24) Other production systems (please describe): _____

D. Management and Regulatory Information:

- (25) Aquaculture facility/hatchery management
- (26) Land use and coastal zone management
- (27) Water resources management
- (28) Pollution and pollution control
- (29) Worker health and safety
- (30) Regulations, permits,licenses
- (31) Financing and loan programs
- (32) Aquaculture marketing
- (33) Other management and regulatory information (please describe): _____

B. Technical Information

- (14) Nutrition of aquatic animals
- (15) Disease of aquatic animals and its control
- (16) Genetics and breeding of aquatic animals
- (17) Aquatic plants culture
- (18) Water quality in aquaculture
- (19) Fish control (marginal - means pesticides)
- (20) Other technical information (please specify): _____

E. Other Aquaculture Information

- (34) Aquaculture processing operations
- (35) Commercial aquaculture
- (36) Research and development

12a. Are there any restrictions on who may use your services?: Yes (see 12b below) No

12b. If yes, please describe conditions of use or membership requirement or attach a description if available and check here

13. Information Services Provided: Other than publications you may produce, check all services your center offers users. Supply the cost of any services in the space provided or attach fee schedule and check here

- (01) Telephone reference service
- (02) Response to mail requests
- (03) Onsite reference service
- (04) Searches of automated files maintained by the center
- (05) Searches of commercially available online files
- (06) Copying services/coin-operated machines
- (07) Blowback for microfiche/film
- (08) Interlibrary loan
- (09) Current awareness/SDI services
- (10) Referral
- (11) Searches of manual indexes and abstracts
- (12) Compile bibliographies
- (13) Consulting services
- (14) Disseminate publications/materials
- (15) Other (please specify): _____

COST	
Member	Nonmember
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

14. Automation of Information Center Operations: If your center plans to automate or currently uses automated library systems, please complete question 14a. If there are no plans to automate, please check the box provided in question 14b.

14a.

- (1) Ordering
- (2) Cataloging
- (3) Serial circulation and control
- (4) Circulation and inventory
- (5) Interlibrary loan
- (6) Subject access
- (7) Current awareness/SDI
- (8) Administration/Accounting
- (9) Other purposes (please describe)

Currently Automated	Plan to Automate Within			
	1 yr	2 yr	3 yr	more than 3 yrs
1				
2				
3				
4				
5				
6				
7				
8				
9				

14b. (10) No current plans to automate any library/information center functions (check here):

15. Size of Aquaculture Holdings (Please provide quantity of holdings available to users contacting the information center. Indicate methods of storage and size of holdings):

15a. Size of Collections

- a. Books
- b. Technical reports
- c. Periodical subscriptions
- d. Microform collection (No. of titles)
- e. Vertical file collections (No. of drawers)
- f. Abstracting & indexing publications
- g. Audiovisual collection

Number of Volumes

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- g. _____

15b. Collection Storage/Retrieval

- h. Computerized data bases
- i. Mag tapes

Number of Records: _____
Number of Tapes: _____

16. Publications (Please list specific publications, newsletters, etc., frequency of publication, and cost to members and nonmembers):

TITLE	Frequency	COST	
		Member	Nonmember
a. _____	_____	_____	_____
b. _____	_____	_____	_____
c. _____	_____	_____	_____
d. _____	_____	_____	_____
e. _____	_____	_____	_____
f. _____	_____	_____	_____

17. Please list other libraries and information centers in your state that may have aquaculture collections.

a. _____ City

b. _____ City

c. _____ City

d. _____ City

e. _____ City

Person completing questionnaire:

Name (please print or type)

Date

Title

()

Telephone

PLEASE RETURN TO:

National Agricultural Library
Field and Special Programs Div.
Room 300
Beltsville, MD 20705

